

HELP WANTED

AN ANALYSIS OF THE TEACHER
PIPELINE IN METRO MILWAUKEE



ABOUT THE PUBLIC POLICY FORUM

The Milwaukee-based Public Policy Forum, established in 1913 as a local government watchdog, is a nonpartisan, nonprofit organization dedicated to enhancing the effectiveness of government and the development of Southeastern Wisconsin through objective research of regional public policy issues.

PREFACE AND ACKNOWLEDGMENTS

This report is intended to provide citizens and policymakers with useful statistical information regarding the educator workforce in the four-county Metro Milwaukee region. We hope this report's findings will be used to inform education discussions and policy debates at the local and state levels. This report is the third in the *Metro Milwaukee Educator* series of reports that explores the characteristics of teachers and school leaders in our metro region.

The *Metro Milwaukee Educator* series has benefitted from the knowledge and expertise of many people. We would like to specifically thank the School Personnel Administrators of Metro Milwaukee, the Education Deans of Greater Milwaukee for their willingness to share data and insight on the teaching profession and pipeline.

We would like to thank the Greater Milwaukee Foundation and Northwestern Mutual Foundation for their generous support of our education research. We also would like to thank the Herzfeld Foundation for its generous 100th anniversary gift, which also helped make this report possible.







Help Wanted:

An Analysis of the Teacher Pipeline in Metro Milwaukee

The third report in the Metro Milwaukee Educator series

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PUBLIC POLICY FORUM

IMPARTIAL RESEARCH. INFORMED DEBATE.

TABLE OF CONTENTS

Introduction	3
Data and Methodology	4
The Transitioning Teacher Workforce	7
Why are Teachers Leaving the Profession?	16
Filling the Gaps	18
The Possible Impacts of the Teaching Workforce Transition	26
The Teacher Pipeline	28
Metro Milwaukee Teacher Prep Programs	35
A Leaky Pipeline Has Consequences	38
The Importance of Teacher Retention	41
Policy Options	43
Conclusion	



INTRODUCTION

Last August, a *New York Times* headline proclaimed "Teacher Shortages Spur a Nationwide Hiring Scramble." The article detailed how school districts across the country "have gone from handing out pink slips to scrambling to hire teachers...a result of the layoffs of the recession years combined with an improving economy in which fewer people are training to be teachers."

What about here in Wisconsin and Metro Milwaukee? Do our state and region face a shortage of teachers and, if so, what are the dimensions of the problem and what can we do about it?

In this, the third and final installment in a series on educators in the Milwaukee area, the Public Policy Forum seeks to address those questions. Building upon our earlier analyses of teacher and school leader demographics and employment trends, we strive to better understand how the teacher workforce has changed in recent years and how it is likely to change in the near future.

We address this issue with a comprehensive look at the public school teacher workforce, as well as teacher preparation programs throughout the state. Our analysis explores the most recent federal, state, and institutional data to answer a number of questions, including:

- How many teachers leave and enter the profession in a given year?
- Why are teachers leaving the profession?
- Are there enough students in teacher preparation programs to replace departing teachers?
- How can schools and districts increase teacher retention?

The educator profession in Wisconsin has been the subject of much discussion and debate in recent years, particularly during the consideration and implementation of Wisconsin Act 10. Consequently, our analysis includes data over multiple years to capture changes in educator workforce numbers since 2009-10 and teacher preparation programs since 2008-09.

The first report in the series, *Taking Attendance*, found that the number of teachers in the region had decreased nearly 5% since 2009-10. In response to retirements and vacancies, districts have hired teachers who are less experienced, but not necessarily younger. The teaching workforce is 98% white, despite the fact that 46% of Metro Milwaukee's K-12 students are students of color.

The second report, *Guiding Principals*, provided a similar look at school and district leaders in the region. Since 2009-10, 39% of school leaders over the age of 55 have left the workforce, meaning that today's superintendents, principals, and assistant principals are younger and less experienced. Leaders of color comprise nearly 28% of the workforce, which is more diverse than teachers, but less than students.

With this third report, we conclude a body of research that provides an unprecedented view of the educator workforce in Greater Milwaukee. We hope the findings and conclusions of our analysis will provide insight for policymakers and the public and spark a much-needed conversation about the future of the teaching workforce within the state and the region.

¹ Rich, Motoko, "Teacher Shortages Spur a Nationwide Hiring Scramble," New York Times, August 9, 2015.



3

DATA AND METHODOLOGY

The data used in this report primarily come from three sources: the 'All Staff' files compiled by the Wisconsin Department of Public Instruction (DPI); Title II reports produced by the U.S. Department of Education; and institutional data on teacher preparation programs from a number of colleges and universities in Greater Milwaukee.

DPI ALL STAFF FILES

The annual 'All Staff' files compiled by DPI include a variety of metrics for each public school employee in Wisconsin, including name, gender, age, demographics, highest degree earned, and years of experience. The files also describe the position and role of each staff member as well as the district and school in which they are employed. Using these 'All Staff' data files as a starting point, we conducted analyses to explore the teacher workforce at public schools.

The sample for analysis includes staff members who are classified as Teacher, Teacher in Charge, and Instructional Technology Integrator. The data sample does not include substitute teachers. We acknowledge there are many other staff members who positively affect the education of students. However, the goal of this report is to look at the personnel most responsible for classroom instruction.

This report focuses on individuals, rather than Full-Time Equivalent (FTE) positions. The sample includes any teacher who had at least one contract day in the academic year, whether or not classroom instruction was their primary position. Unfortunately, the 2013-2014 school year represents the latest year for which a complete data set is available. We had hoped the DPI data set for the 2014-15 year would be available, as it has been at this point in previous years, but we recently learned that would not be the case.

It is important to note how charter schools are counted. Schools that are chartered by the Milwaukee Public Schools (MPS) are counted in the aggregate figures for Metro Milwaukee and are included in the district figures for MPS. Schools that are chartered by the Milwaukee Common Council and the University of Wisconsin-Milwaukee are included in the aggregate figures for Metro Milwaukee, but are not included in the district breakdowns.

Private schools are not included in any analyses, however, as data regarding the teacher workforce in those schools are not collected by DPI and are not publicly available. Consequently, because of the unavailability of these data, the analysis provided here reflects a large, but still incomplete view of the state and regional teacher workforce.

U.S. DEPARTMENT OF EDUCATION TITLE II REPORTS

The Higher Education Act (HEA) is the primary federal law pertaining to postsecondary education and has been reauthorized and updated from time to time since it was initially passed by Congress in 1954. Title II of HEA addresses teacher quality and includes a section requiring teacher preparation programs to submit annual reports on a variety of metrics, including program entry and exit requirements, enrollment levels, the number of program completers, and the number of teaching licenses granted.



Data are submitted by each of the 40 teacher preparation programs in Wisconsin and are compiled by DPI for reporting to the U.S. Department of Education. These programs include 33 colleges and universities as well as seven alternative, non-college-based programs. The data include students seeking their initial teaching credential, rather than those pursuing graduate degrees. The reports also include the number of individuals receiving a Wisconsin teaching license who completed a teacher preparation program in another state. Our analysis uses the annual Title II reports from 2010 to 2015, which cover the 2008-09 to 2013-14 academic years.

INSTITUTIONAL DATA FROM AREA COLLEGES AND UNIVERSITIES

The DPI 'All Staff' files and the federal Title II reports provide a wealth of information about the current teaching profession and those preparing to enter the workforce. However, there are limitations associated with each that limit the research questions we can explore.

One limitation is the lag time in collecting and releasing the data. We are currently nearing the end of the 2015-16 school year, yet the most recent publicly available data cover only the 2013-14 school year. This lag, while unavoidable, presents challenges to policymakers and stakeholders trying to accurately grasp the situation. Moreover, there were research questions we wanted to explore for which there were no data in the datasets. For example, how many of the students completing a teacher preparation program actually took a job as a teacher?

We sought to overcome these limitations by reaching out to colleges and universities in the Metro Milwaukee area to share institutional data on their teacher preparation programs. Six institutions responded to our survey and provided more up-to-date information on program enrollment and completion levels. Additionally, they shared available employment data for program completers.

It is important to note that while these colleges represent only a portion of the 40 teacher preparation programs throughout the state, their institutional data help paint a more accurate picture of the pool of potential teachers in our region.

GEOGRAPHICAL AREA OF ANALYSIS

Our analysis involves looking at the teacher pipeline from national, state, and local perspectives. One benefit of the federal Title II reports is that they are compiled by each state. This enables us to compare characteristics of teacher preparation programs in Wisconsin with similar programs in neighboring states, as well as with national figures. This comparison helps to put changes within Wisconsin in context with national and regional trends.

Graduates from Wisconsin's 40 teacher preparation programs can take jobs anywhere, including Metro Milwaukee. Moreover, the demand for teachers is determined in part by staffing changes in districts statewide. A graduate from UW-Whitewater could just as easily consider a teaching job in Milwaukee as a job in Janesville. Therefore, we include an analysis of state data to understand how the teacher workforce and teacher preparation programs throughout the state have changed over time.

After showing statewide figures and trends, we present the same metrics for the four-county Milwaukee Standard Metropolitan Statistical Area, which includes the public school districts in Milwaukee, Ozaukee, Washington, and Waukesha counties. Our analysis explores how our region differs – if at all – from statewide patterns and trends.



For some metrics, we provide a district-by-district breakout. Several districts in the region are singular elementary and middle schools that feed into one of three union high schools: Arrowhead Union in Waukesha County, Hartford Union in Washington County, and Nicolet Union in Milwaukee County. To help distinguish these singular schools in the analyses, each table provides the grade levels served by these districts that contribute to the union high schools.

Act 10, adopted in 2011, included a series of fiscal "tools" intended to help schools balance their budgets in the face of increasing health care and retiree legacy costs, major reductions in state aid adopted as part of the 2011-13 biennial state budget, and lower school district property tax levy caps. The bill aimed to achieve cost reductions in three mains ways: by severely restricting the topics subject to collective bargaining by public employees; by requiring public employees to contribute 5.8% of their salary toward their pensions; and by requiring public employees in statesponsored health care plans to pay 12.6% of their health insurance premiums.

From the perspective of local school districts, perhaps the most significant provision of Act 10 was its elimination from the collective bargaining process of all topics other than wage increases, which the law limits to the rate of inflation. Topics that were traditionally subject to labor negotiations, such as tenure, seniority, fringe benefits, and retirement age, may now be established at the discretion of local school boards. Wage increases negotiated beyond the rate of inflation must be approved by a referendum, and unions and employers no longer are allowed to bargain over supplementary pay above base wages.



THE TRANSITIONING TEACHER WORKFORCE

We begin our analysis of the educator pipeline by seeking to understand the current state of the teaching profession and how it has changed over time. Using data from the annual DPI 'All Staff' files, we can quantify the number of teachers who have left the profession in recent years and explore their characteristics. Several data findings in this section were included in the first report in this series, *Taking Attendance*,² which contained lengthier analysis.

HOW MANY TEACHERS ARE IN THE WORKFORCE?

Table 1 illustrates that there were 59,837 classroom teachers working in public school districts throughout Wisconsin in the 2013-14 school year. Over the past five years, the number of teachers in the state has decreased by 1,478, or 2.4%. To provide context, the number of students enrolled in public schools in the state increased by 0.3% (2,269 students). While the number of public school students has remained relatively constant over time, we have fewer teachers in the state.

Table 1: Number of public school students and teachers over time

	2009-10	2010-11	2011-12	2012-13	2013-14	Change Over Time	Percent Change Over Time
Teachers in Metro Milwaukee	15,111	15,072	14,426	14,385	14,411	-700	-4.6%
Teachers in Wisconsin	61,315	60,956	59,356	59,399	59,837	-1,478	-2.4%
Students in Metro Milwaukee	237,127	237,740	235,723	235,543	236,205	-922	-0.4%
Students in Wisconsin	871,262	871,550	870,470	871,551	873,531	2,269	0.3%

Source: Wisconsin Dept. of Public Instruction

In the four-country metro area, there were 14,411 public school teachers in 2013-14, which represents a decline of 700 positions. The decrease in teachers in Metro Milwaukee comprises nearly half of the statewide loss. In the region, the workforce declined by 4.6% since 2009-10 while the number of students declined by 0.4%. As with the state, the decrease in teachers across the region outpaced changes in student enrollment.

Looking at the workforce from an aggregate level obscures that some districts added teachers and some districts lost teachers over the time period. As we noted in *Taking Attendance*, **MPS had 730 fewer teachers in 2013-14 than in 2009-10**. Looking at other large districts, we see that Kenosha had 362 fewer teachers, while Madison added 261 teachers and Racine added 50. There is variation from district to district, but as a region and a state, there are fewer public school teachers in classrooms today than five years ago.

HOW MANY TEACHERS HAVE LEFT THE PROFESSION?

Our analysis includes public school teachers throughout the state. As a result, we can determine if a teacher truly left the workforce from one year to the next rather than simply moving from one district to another. **Table 2** shows the number of teachers who left the workforce from one school year to the next. In addition to giving state and regional data, the table includes a district-by-district look for each of the 50 districts in the four-county metro area. To provide context for MPS, the table also includes the next four largest school districts in the state.

² http://publicpolicyforum.org/research/taking-attendance-analysis-greater-milwaukees-teacher-workforce.



7

Statewide, there were 4,932 teachers working in the 2012-13 school year who did not return for the 2013-14 school year, while in the Milwaukee area, there were 1,498 teachers who left the workforce. As expected, the larger districts tended to have larger numbers of teachers leaving each year. Looking at figures over time, we see that the number of educators leaving the workforce annually was higher in 2013-14 than following the 2009-10 school year. This pattern is true for the state, for the region, and for 25 of the 50 districts in the area.

Changes to the teacher workforce year-to-year also yield interesting results. The data show a clear spike in teachers leaving after the 2010-11 school year. This corresponds to the time then Act 10 was proposed and the contentious process by which the legislation was adopted. We cannot say that Act 10 caused the spike in teachers leaving the workforce, but there is an unmistakable break in the trend line immediately following the legislation.

In the year following the adoption of Act 10, the number of teachers leaving the profession declined. The state, region, and area districts saw fewer teachers leave after the 2011-12 academic year, though departures were higher than the baseline year of 2009-10.

A number of districts saw a sharp increase in teachers leaving following the 2012-13 school year. For several districts – including MPS, Kenosha, and Racine – June 30, 2013 marked the expiration of union contracts enacted prior to Act 10. This meant that 2013-14 was the first school year in which these districts fell under the new Act 10 rules. At MPS, 682 teachers left the profession prior to the 2013-14 school year, a 58.6% increase in departures from the prior year. Similarly, Racine saw a 51.1% rise in teachers leaving. In Kenosha, the number leaving the profession jumped from 28 teachers following the 2011-12 school year to 154 after 2012-13, a 450% increase in a single year.

Again, we cannot say that the sharp increase in teachers leaving prior to the 2013-14 school year was caused by the application of Act 10 provisions in these districts. However, there is a clear pattern to suggest a relationship between the end of the union contract and teacher departures in these districts.



Table 2: How many teachers left the workforce between each year?

District	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Arrowhead UHS (9-12)	11	7	6	10
Brown Deer	7	11	8	9
Cedarburg	15	22	15	19
Cudahy	18	17	22	12
Elmbrook	33	62	21	33
Erin (K-8)	2	5	4	0
Fox Point (K-8)	5	3	6	6
Franklin	22	22	16	22
Friess Lake (K-8)	2	7	4	4
Germantown	13	29	14	14
Glendale-River Hills (K-8)	4	6	4	5
Grafton	7	9	5	9
Greendale	14	27	13	11
Greenfield	15	22	27	14
Hamilton	19	25	15	9
Hartford J1 (K-8)	14	14	16	6
Hartford UHS (9-12)	11	15	3	8
Hartland-Lakeside (K-8)	9	17	4	7
Kettle Moraine	20	27	18	22
Kewaskum	7	10	7	10
Lake Country (K-8)	1	4	2	6
Maple Dale - Indian Hills (K-8)	0	3	3	7
Menomonee Falls	16	15	16	37
Mequon-Thiensville	12	33	20	22
Merton (K-8)	2	9	3	4
Milwaukee	459	649	430	682
Mukwonago	17	44	14	15
Muskego-Norway	20	30	14	18
New Berlin	20	32	37	28
Nicolet UHS (9-12)	2	11	5	6
Northern Ozaukee	11	10	2	10
North Lake (K-8)	5	1	4	2
Oak Creek-Franklin	30	48	18	25
Oconomowoc	29	27	29	16
Pewaukee	12	16	11	9
Port Washington-Saukville	8	19	10	14
Richfield (K-8)	5	4	3	4
Richmond (K-8)	2	7	3	0
Saint Francis	5	14	9	6
Shorewood	8	12	11	10
Slinger	6	15	12	24
South Milwaukee	12	23	21	11
Stone Bank (K-8)	3	3	3	1
Swallow (K-8)	1	4	3	2
Waukesha	54	166	88	63
Wauwatosa	41	39	34	38
West Allis	38	83	93	56
West Bend	40	46	39	23
Whitefish Bay	16	15	20	13
Whitnall	11	18	4	13
Metro Milwaukee	1,223	1,870	1,375	1,498
Green Bay	114	122	132	92
Kenosha	93	240	28	154
Madison	142	241	302	213
Racine State of Wisconsin	72 4,173	109 6,507	86 4,688	130 4,932

Source: Wisconsin Dept. of Public Instruction



WHAT PERCENTAGE OF THE WORKFORCE LEFT THE PROFESSION?

Given the variation in district size across the region, looking at the raw number of teachers who left can be misleading. **Table 3** provides the percentage of the teacher workforce who left the profession from one year to the next. This provides a more complete picture of how districts are affected by teacher turnover. (Single-school districts should be interpreted with caution as their data can be prone to large percentage changes.)

Across public school districts in the state, 8.3% of the workforce in 2012-13 did not return for the 2013-14 school year. The region experienced a higher percentage of teachers leaving – 10.4% – in part due to an exodus of teachers from MPS, where 15.4% of the workforce did not return. Other districts with high turnover include Maple Dale-Indian Hills (17.5%), Lake Country (14.6%), and Slinger (13.6%). Some small districts, such as Erin and Richmond, returned all of their teachers in the most recent year. Still others had relatively small turnover, including Hamilton (3.2%), Stone Bank (3.4%), and Hartford (4.6%).

When looking over time, we once again see a break in the trend line following the adoption of Act 10. Statewide, 10.7% of the teacher workforce did not return for the 2011-12 school year, while the pattern was more pronounced in Metro Milwaukee, where 12.4% of the workforce left. Districts large and small experienced teacher turnover rates that were much higher than following the 2009-10 school year. Hartland-Lakeside saw 20.7% of the workforce depart, while Waukesha (19%) and Saint Francis (17.1%) had similarly high departure rates.

Following the first year in which Act 10 was in effect – 2011-12 – the percentage of the workforce who left the profession declined. However, teacher departures for the state (7.9%) and the region (9.5%) still exceeded the baseline figures following the 2009-10 academic year. The decline was short-lived as a greater percentage of the workforce did not return after the 2012-13 school year. As discussed above, this increase in departures aligns with union contracts in several large districts expiring prior to the 2013-14 school year.

With the Act 10 provisions now fully implemented in districts through the state, it is unclear how the number and percentage of teachers leaving the workforce each year will change moving forward.



Table 3: What percentage of the workforce left the profession between each year?

Table 3: what percentage of	Between 2009-10	Between 2010-11	Between 2011-12	Between 2012-13
District	and 2010-11	and 2011-12	and 2012-13	and 2013-14
Arrowhead UHS (9-12)	8.6%	5.5%	4.8%	8.2%
Brown Deer	5.8%	9.1%	6.6%	7.2%
Cedarburg	7.9%	11.6%	8.1%	9.8%
Cudahy	9.0%	8.8%	12.1%	6.5%
Elmbrook	6.4%	12.4%	4.4%	6.9%
Erin (K-8)	7.4%	19.2%	16.0%	0.0%
Fox Point (K-8)	7.5%	4.2%	8.5%	8.6%
Franklin	8.2%	8.0%	5.8%	8.0%
Friess Lake (K-8)	7.4%	26.9%	20.0%	18.2%
Germantown	5.0%	11.2%	5.5%	5.5%
Glendale-River Hills (K-8)	6.0%	9.1%	5.6%	7.4%
Grafton	4.7%	6.1%	3.4%	6.2%
Greendale	8.0%	15.3%	7.2%	6.1%
Greenfield	7.2%	10.7%	12.9%	6.4%
Hamilton	6.6%	8.9%	5.3%	3.2%
Hartford J1 (K-8)	11.1%	10.9%	12.9%	4.6%
Hartford UHS (9-12)	10.7%	15.0%	3.3%	8.6%
Hartland-Lakeside (K-8)	10.7%	20.7%	4.8%	9.6%
Kettle Moraine	7.6%	10.7%	7.1%	8.6%
Kewaskum	5.3%	7.8%	5.5%	7.9%
Lake Country (K-8)	2.2%	8.9%	4.7%	7.9% 14.6%
Maple Dale - Indian Hills (K-8)	0.0% 5.4%	7.5%	7.5%	17.5%
Menomonee Falls Meguon-Thiensville		5.1%	5.6% 8.8%	13.0% 9.6%
•	5.2%	14.4%		
Merton (K-8)	3.0%	13.8%	4.9%	6.9%
Milwaukee	9.0%	12.9%	9.5%	15.4%
Mukwonago	5.6%	14.3%	4.7%	5.2%
Muskego-Norway	6.8%	10.5%	4.9%	6.3%
New Berlin	7.2%	11.1%	12.4%	9.6%
Nicolet UHS (9-12)	2.5%	14.5%	6.6%	7.7%
North Lake (K-8)	18.5%	3.6%	14.3%	7.1%
Northern Ozaukee	11.7%	12.2%	2.7%	13.9%
Oak Creek-Franklin	8.2%	13.0%	5.0%	6.8%
Oconomowoc	9.4%	9.0%	9.4%	5.3%
Pewaukee	7.7%	10.1%	7.0%	5.7%
Port Washington-Saukville	4.8%	11.5%	6.0%	8.3%
Richfield (K-8)	16.7%	12.9%	9.4%	13.3%
Richmond (K-8)	6.1%	22.6%	9.7%	0.0%
Saint Francis	5.8%	17.1%	11.7%	7.6%
Shorewood	6.2%	9.2%	8.1%	7.4%
Slinger	3.5%	8.7%	6.9%	13.6%
South Milwaukee	5.6%	11.0%	10.4%	5.2%
Stone Bank (K-8)	11.1%	10.3%	10.3%	3.4%
Swallow (K-8)	2.4%	9.8%	7.5%	5.3%
Waukesha	6.5%	19.0%	10.5%	7.3%
Wauwatosa	7.9%	7.6%	6.7%	7.6%
West Allis	6.5%	13.3%	15.0%	8.8%
West Bend	8.8%	10.6%	9.7%	5.6%
Whitefish Bay	8.0%	7.5%	10.2%	6.5%
Whitnall	7.7%	12.9%	2.8%	8.7%
Metro Milwaukee	8.1%	12.4%	9.5%	10.4%
Green Bay	7.6%	8.2%	9.0%	6.2%
Kenosha	5.8%	14.3%	2.0%	12.4%
Madison	7.1%	11.8%	14.1%	9.5%
Racine	5.1%	7.6%	6.0%	9.2%
State of Wisconsin Source: Wisconsin Dept. of Publ	6.8%	10.7%	7.9%	8.3%

Source: Wisconsin Dept. of Public Instruction



HOW OLD ARE THE TEACHERS WHO LEFT THE PROFESSION?

Now that we have quantified how many teachers have left the profession each year, we can explore some characteristics such as age and experience.

Table 4 shows the average age of public school teachers who left the workforce after each school year. In the most recent year, the average teacher leaving the profession was 47.7 years old across the state and 47.6 years old in the Milwaukee area.

Table 4: What is the average age of a teacher who left the workforce in each year?

	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Metro Milwaukee	44.2	49.0	46.3	47.6
State of Wisconsin	46.8	50.2	47.3	47.7

Source: Wisconsin Dept. of Public Instruction

Looking at the data over time presents several interesting findings. First, teachers leaving Milwaukee area districts are younger than their statewide peers in each year. Second, the average age has increased. The average age of a teacher who left following the 2009-10 school year was 46.8 years statewide and 44.2 years in the region. The rise in average age means that, over time, older teachers are making up a larger portion of those leaving the profession.

The average age rises sharply following the 2010-11 school year which, as we have discussed, corresponds to the adoption of Act 10. This finding suggests that a sizable number of older teachers left the profession at that time. **Table 5** provides further insight by showing the age groups of Wisconsin teachers who left the workforce.

Table 5: What percentage of Wisconsin teachers who left fell into each age group?

Age Group	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Under 25	2.3%	1.4%	1.6%	1.6%
20s	15.8%	10.8%	12.7%	11.8%
30s	21.7%	16.0%	21.6%	21.9%
40s	12.4%	8.9%	15.1%	14.0%
50 to 54	4.9%	3.9%	5.9%	6.4%
55 and Above	45.6%	60.3%	44.6%	45.8%

Source: Wisconsin Dept. of Public Instruction

Among public school teachers throughout the state who left the profession in the most recent year, 11.8% were in their 20s, 21.9% were in their 30s, 14% were in their 40s, 6.4% were between the ages of 50 and 54, and 45.8% were 55 and older. The Wisconsin Retirement System (WRS) is the pension system for public employees, including teachers at public school districts. The minimum retirement age under WRS is 55 years old with reduced benefits, and age 65 with full benefits. For our analysis, we assume that teachers age 55 and older who left the workforce have retired.



It is not surprising that retirement-eligible teachers make up the largest group of those leaving the workforce. The data also reveal, however, that in districts throughout Wisconsin, 54.1% of the teachers who leave are doing so *prior* to retirement. Young teachers in their 20s and 30s comprise nearly 34% of those who leave the profession. This finding suggests that public school districts in the state have difficulty retaining young teachers.

The over-time analysis again points to 2010-11 as an anomaly. Following this school year, retirement-eligible teachers made up 60.3% of all public school teachers in Wisconsin who left the workforce. Except for this point in time, retirement-eligible teachers consistently comprise around 45% of those who leave the profession. Also, the percentage of teachers leaving the workforce at age 50 to 54 has increased over time. It is interesting that these teachers would leave when they are so close to the retirement age.

Young teachers in their 20s and 30s actually comprise a smaller percentage of those leaving in the most recent year as compared to 2009-10 (37.5%). While there has been a percentage decrease for this group over time, however, the actual number of teachers in their 20s and 30s leaving the profession has increased, further underscoring the need to address retention efforts.

Table 6 provides a similar look at age groups for Metro Milwaukee. Of the area teachers who left after the 2012-13 school year, 12.1% were in their 20s, 21.9% were in their 30s, 13.1% were in their 40s, 6.2% were between the ages of 50 and 54, and 46.7% were 55 and older. The region has slightly more teachers in their 20s and over age 55 – and slightly fewer teachers in their 40s – leaving the workforce.

Table 6: What percentage of Metro Milwaukee teachers who left fell into each age group?

Age Group	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Under 25	4.0%	1.6%	1.8%	2.1%
20s	20.1%	11.9%	11.9%	12.1%
30s	24.1%	18.4%	24.7%	21.9%
40s	13.8%	10.2%	17.4%	13.1%
50 to 54	6.3%	4.7%	6.1%	6.2%
55 and Above	35.7%	54.8%	39.9%	46.7%

Source: Wisconsin Dept. of Public Instruction

Compared to the state, Metro Milwaukee had a smaller percentage (54.8%) of retirement-eligible teachers leave immediately after Act 10 was adopted. This may stem from the MPS union contract continuing through the 2012-13 school year, which likely contributed to the rise in departures for this age group in the most recent year. Additionally, it's interesting to note that young teachers in their 20s and 30s comprised 44.2% of those who left the workforce after 2009-10. Over time, this age group represented a smaller percentage of those leaving the profession. It is clear, however, that the Metro Milwaukee region also must focus on teacher retention efforts.

WHAT IS THE EXPERIENCE LEVEL OF THOSE WHO LEFT THE WORKFORCE?

Table 7 illustrates the average number of years of experience possessed by public school teachers who left the profession after each school year. In the most recent year, the average Wisconsin teacher who left the workforce had 16.7 years of experience, while the average among educators leaving Metro Milwaukee districts was 15.6 years.



Table 7: What is the average years of experience of a teacher who left the workforce in each year?

	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Metro Milwaukee	13.4	18.5	15.0	15.6
State of Wisconsin	16.6	20.5	16.4	16.7

Source: Wisconsin Dept. of Public Instruction

Looking at the statewide data over time, the average experience of a teacher who left the workforce has been relatively consistent at about 16.5 years. The experience level among teachers who left Metro Milwaukee districts, however, has increased over time. This aligns with the finding above that young teachers (20s and 30s) with less experience made up a larger percentage of those leaving following the 2009-10 school year than in more recent years. Average experience levels of teachers leaving for both the state and region spiked following the 2010-11 school year, which corresponds to the wave of teachers age 55 and older exiting the workforce.

Table 8 provides a breakdown of years of experience among Wisconsin teachers who left the workforce. About 40% of statewide leavers in each year had more than 20 years of experience, with this group accounting for 54% of those leaving following the 2010-11 school year. The high representation of this group corresponds to older teachers leaving the workforce. However, **nearly one in five of the teachers who left in the most recent year was a new teacher with less than five years of experience**. Although the share of new teachers among those leaving is down from 26.2% following the 2009-10 school year, the departure of so many new teachers presents a challenge for school and district leaders.

Table 8: What percentage of Wisconsin teachers who left fell into each experience group?

Years of Experience	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Less than 5	26.2%	17.1%	21.0%	19.3%
5 to 10	15.6%	11.9%	16.1%	15.8%
10 to 15	10.7%	9.1%	13.3%	14.3%
15 to 20	8.1%	7.9%	11.3%	11.5%
20 +	40.4%	54.0%	38.2%	39.1%

Source: Wisconsin Dept. of Public Instruction

Looking at the same distribution for Metro Milwaukee in **Table 9**, we see the region largely mirrors the state, with two exceptions. First, teachers with more than 20 years of experience make up a smaller portion of those leaving in the region as compared to the state. Second, teachers with less than five years of experience make up a greater portion of those leaving in Greater Milwaukee. In fact, following the 2009-10 school year, new teachers made up a larger portion of those leaving than teachers with more than 20 years of experience. The portion of new teachers among those leaving has declined over time, though new teachers still comprise the second-largest group of leavers. This would suggest that school and district leaders should continue to focus on retention strategies for new teachers.



Table 9: What percentage of Metro Milwaukee teachers who left fell into each experience group?

Years of Experience	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Less than 5	33.7%	22.0%	20.5%	21.9%
5 to 10	17.5%	12.6%	19.8%	14.4%
10 to 15	11.2%	9.9%	15.2%	15.6%
15 to 20	7.9%	8.5%	11.6%	11.9%
20 +	29.7%	46.9%	32.9%	36.1%

Source: Wisconsin Dept. of Public Instruction

The data show new teachers with less than five years of experience to be the second-largest group to leave the profession. This pattern holds true for each year in our analysis for both the state and the region. Given their size and importance, we wanted to explore this group in more detail.

Table 10 shows that the average age of a new teacher with less than five years of experience departing the workforce is about 33 years old in both the state and the region. In addition, the average new teacher who left the profession had 2.2 years of teaching experience.

Table 10: What is the average age of a new teacher with less than 5 years of experience who left the workforce left in each year?

	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Metro Milwaukee	32.6	32.7	33.5	33.1
State of Wisconsin	33.0	32.3	33.4	33.3

Source: Wisconsin Dept. of Public Instruction

This finding indicates that the typical new teacher in Wisconsin is not a 23-year old new college graduate, but someone in his or her early 30s. This aligns with a finding in our previous report that districts were hiring less experienced, but not necessarily younger, teachers. The type of support and professional development offered to new teachers might not resonate equally across educators in different age groups. Understanding the ages and life circumstances of new teachers may help school and district leaders design and implement policies and practices that better retain their new hires.



WHY ARE TEACHERS LEAVING THE PROFESSION?

Apart from retirement, teachers leave the profession for any number of reasons. This does not make the teaching profession necessarily different from any other kind of job. However, with the rise in teachers leaving the workforce in recent years, we wanted to know if there were common themes among those departing. Understanding some of the reasons why teachers leave the profession can help inform strategies and policies to improve teacher retention.

We conducted a survey of human resource officers at school districts throughout Metro Milwaukee to ask for the three most common reasons teachers give for leaving the workforce.³ While this is not a substitute for interviewing every teacher who leaves the profession, the high-level answers below provide valuable insight.

MONEY

Survey respondents listed money as the most frequent reason teachers leave the profession. From low starting salaries, to capped raises, to a lack of opportunity for income growth, teachers indicate they seek higher earnings beyond the classroom. The average starting salary for a new teacher in Wisconsin ranges from the low \$30,000s to low \$40,000s, depending on the district. By comparison, the median starting salary for a new college graduate in 2014 was \$45,478.4

Teachers need a bachelor's degree to be certified, and given the rapid rise in college costs, many teachers face the prospect of paying student loan debt. Moreover, teaching by itself is not a middle-class or family-supporting profession. According to the federal poverty guidelines, the children of a four-person family with an annual income of \$44,863 qualify for the Free and Reduced Price Lunch program.⁵ It is entirely possible, therefore, for a teacher who has been required to earn a college degree to be compensated at a level that places his or her children in a poverty assistance program.

Under pre-Act 10 collective bargaining contracts, salaries typically were based on years of experience and qualifications such as a master's degree. There were levels and pay grades that allowed for annual advancement until an upper limit was reached to what a teacher could earn. When the Act 10 legislation ended collective bargaining for salaries, it removed the step increase pay system and created a free market for labor. With districts no longer bound to predetermined wage levels and an upper cap, they now may have increased flexibility to increase teacher salaries as a way to retain highly qualified teachers. Of course, in light of general budget constraints, it also is possible that doing so could negatively impact overall salary levels.

⁵ U.S. Department of Agriculture. (2015). *Child Nutrition Programs – Income Eligibility Guidelines*. https://www.gpo.gov/fdsys/pkg/FR-2015-03-31/pdf/2015-07358.pdf



³ Survey was sent to members of the School Personnel Administrators of Metro Milwaukee, a professional organization of human resource officers from districts throughout the region.

⁴ National Association of Colleges and Employers. (2015). *Spring 2015 Salary Survey*. http://www.naceweb.org/about-us/press/average-starting-salaries-class-2014.aspx

FAMILY

The second-most frequent reason for leaving the profession is family. Women comprise roughly 75% of teachers in Wisconsin, many of whom are of child-bearing age. While districts may have generous maternity leave policies, the time constraints of the school schedule may pose challenges for childcare. Survey respondents uniformly cited instances of teachers not returning to the workforce after having children. This finding should perhaps prompt districts to consider policy changes that better accommodate the challenges of working parents.

Apart from being the most frequent responses, money and family are intertwined. Having a family typically increases the need for money, which may prompt some teachers to leave the profession in search of better-paying opportunities. Moreover, childcare can be expensive. In some cases, teachers' salaries may be so low that it is more advantageous to stay home and care for their child themselves.

DEMANDS AND EXPECTATIONS OF THE JOB LEAD TO BURNOUT

Many survey respondents listed changing demands and expectations of the job as a reason for leaving the profession. In recent years, teachers have encountered a number of structural changes to their job, including the adoption of new academic standards, new state assessment exams, accountability metrics, and performance-based compensation in some districts. According to our respondents, for some teachers, these changes added pressure and stress, which contributed to feeling burnt out and seeking another career.

In addition to these regulatory changes, respondents indicate that some teachers were unprepared for the challenges of the job. There is a perception that teacher preparation programs may not necessarily equip completers with the required skills. Moreover, some teachers may realize – on their own or through the guidance of administrators – that the teaching profession might not be the best fit. In these cases, leaving the profession is not necessarily a bad outcome.

OTHER RESPONSES

Some teachers moved on from the classroom for positive reasons, such as promotion to principal or assistant principal. Some teachers cited the distance to work as a reason for leaving, though presumably, they could find a school closer to their home if they were so inclined. Other teachers spoke of the desire to pursue other opportunities and careers. It seems this desire may be tied to money, as one respondent indicated science teachers and other positions become harder to fill as the economy improves and more lucrative opportunities arise.



FILLING THE GAPS

After quantifying the number of teachers leaving the workforce each year and exploring reasons why, we turn our attention to the teachers being hired to fill vacancies. Using the DPI 'All Staff' files, we can look at the number and characteristics of teachers who entered the profession in a given year.

HOW MANY TEACHERS ENTER THE WORKFORCE?

Our analysis looks at teachers working in a given school year who were not teaching in the prior year. By looking at all public school teachers in the state, we can isolate those who truly entered the workforce in a given year, as opposed to those who simply moved from one district to another.

It is important to note that teachers entering the workforce in a given year are not necessarily *new* teachers. As our analysis will show, many of these employees have prior teaching experience. As such, we refer to these educators as 'entering' the workforce rather than being a 'new teacher.'

Table 11 shows the number of teachers who entered the workforce from one school year to the next. In addition to providing state and regional data, the table includes a district-by-district look at each of the 50 districts in the four-county area. To provide context for MPS, the table also includes the next four largest school districts in the state.

Statewide, there were 5,370 teachers working in the 2013-14 school year who did not work in 2012-13, while in the Milwaukee area, there were 1,526 teachers who entered the workforce. As expected, the larger districts tend to have larger numbers of teachers entering each year. To a large extent, the number of teachers entering the workforce in a given year is predicated on the number of educators from the prior year who did not return.

Looking at figures over time, we see that the number of teachers entering the workforce annually was higher in 2013-14 than following the 2009-10 school year. This pattern is true for the state, the region, and 30 of the 50 districts in the area. The number of teachers entering the profession statewide jumped following the 2010-11 school year, which corresponds to the adoption of Act 10 and a spike in educators leaving the profession. However, Metro Milwaukee did not see a spike in teachers leaving at that time.

Districts in the Milwaukee area and the state saw the highest number of teachers enter the workforce in the 2013-14 school year. This aligns with a large number of teachers leaving the profession following the 2012-13 school year in which union contracts expired in a number of large districts, including MPS, Racine, and Kenosha. At MPS, 617 teachers entered the profession in the 2013-14 school year, a 43.5% increase from the prior year. Similarly, Racine saw an 86% rise in teachers entering. In Kenosha, the number entering the profession jumped from 28 teachers in the 2012-13 school year to 259 in the 2013-14 year, an increase of 825%.



Table 11: How many teachers entered the workforce in each year?

District	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Arrowhead UHS (9-12)	7	7	6	7
Brown Deer	5	14	8	14
Cedarburg	11	18	15	13
Cudahy	13	11	22	15
Elmbrook	17	36	21	28
Erin (K-8)	3	2	4	5
Fox Point (K-8)	5	4	6	4
Franklin	23	16	16	15
Friess Lake (K-8)	0	10	4	2
Germantown	12	18	14	12
Glendale-River Hills (K-8)	6	7	4	7
Grafton	7	6	5	10
Greendale	11	24	13	16
Greenfield	8	22	27	22
	13			
Hamilton	16	23	15 16	9 3
Hartford J1 (K-8)		13	16	
Hartford UHS (9-12)	6	9	3	6
Hartland-Lakeside (K-8)	7	15	4	7
Kettle Moraine	10	22	18	20
Kewaskum	7	8	7	17
Lake Country (K-8)	0	4	2	4
Maple Dale - Indian Hills (K-8)	2	4	3	3
Menomonee Falls	15	6	16	33
Mequon-Thiensville	11	25	20	24
Merton (K-8)	1	5	3	1
Milwaukee	440	280	430	617
Mukwonago	20	24	14	18
Muskego-Norway	14	24	14	18
New Berlin	23	34	37	47
Nicolet UHS (9-12)	2	6	5	2
North Lake (K-8)	5	1	4	1
Northern Ozaukee	3	7	2	10
Oak Creek-Franklin	30	36	18	29
Oconomowoc	21	27	29	30
Pewaukee	12	9	11	16
Port Washington-Saukville	6	18	10	11
Richfield (K-8)	7	4	3	6
Richmond (K-8)	1	6	3	0
Saint Francis	3	6	9	5
Shorewood	9	16	11	6
Slinger	7	14	12	10
South Milwaukee	11	13	21	9
Stone Bank (K-8)	4	4	3	0
Swallow (K-8)	2	2	3	5
Waukesha	91	101	88	57
Wauwatosa	30	42	34	43
West Allis	71	80	93	81
West Bend	22	24	39	27
Whitefish Bay	15	10	20	10
Whitnall	7	17	4	11
Metro Milwaukee	1,211	1,231	1,303	1,526
Green Bay	93	105	132	139
Kenosha	160	30	28	259
Madison	172	320	302	231
Racine	100	102	86	160
State of Wisconsin	3,819	4,911	4,731	5,370

Source: Wisconsin Dept. of Public Instruction



WHAT PERCENTAGE OF THE WORKFORCE ENTERED THE PROFESSION?

Table 12 provides the percentage of the teacher workforce who entered the profession from one year to the next. This provides a more complete picture of how districts are affected by teacher turnover. (Again, single-school districts should be interpreted with caution as their data can be prone to large percentage changes.)

Across public school districts in the state, 9% of the workforce in 2013-14 was not teaching in the 2012-13 school year. The region experienced a higher percentage of teachers entering – 10.6% – in part due to MPS, which saw 14.1% of its workforce enter the profession. Other districts with a high percentage of teachers entering the workforce include New Berlin (15.9%), Northern Ozaukee (13.7%), and Kewaskum (12.9%). The Richmond and Stone Bank districts retained all teachers from the prior year. Still others had relatively small amount of teachers entering the profession, including Hartford J1 (2.4%), Nicolet Union High School (2.6%), and Hamilton (3.2%).

Looking at figures over time, we see that entering teachers as a percentage of the workforce were higher in 2013-14 than following the 2009-10 school year. This pattern is true for the state, for the region, and for 35 of the 50 districts in the area. Entering teachers comprised a higher percentage of the workforce in the 2011-12 school year, which corresponds to the adoption of Act 10 in most districts and a spike in teachers leaving the profession.

For Metro Milwaukee, 2013-14 is the year in which entering teachers make up the largest percentage of the workforce. Kenosha, MPS, and Racine also saw the percentage of entering teachers in the workforce rise sharply in 2013-14. This aligns with a large number of teachers leaving the profession following the 2012-13 school year, when union contracts in these districts expired. Entering teachers as a percentage of the workforce jumped from 2.3% to 18.8% in Kenosha, from 6.1% to 11% in Racine, and from 9.7% to 14.1% in MPS.

In 2013-14, there were 17 districts in the Milwaukee region in which nearly one in 10 teachers were not working in the prior school year. Though some entering teachers may have prior teaching experience, they may be unfamiliar with the schools and districts in which they are now employed. Research points to school culture as a significant factor in student academic achievement.⁶ When 10% of the workforce departs and is replaced in any given year, schools and district may struggle to build the culture and environment necessary to ensure high achievement levels.

⁶ MacNeil, A.J., Prater, D.L., Busch, S. (2009). *The effect of school culture and climate on student achievement.* International Journal of Leadership in Education.



Table 12: What percentage of the workforce entered the profession between each year?

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Hamilton	Greendale	6.2%	13.3%	7.3%	8.8%
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Hartford UHS (9-12) 6.0% 9.8% 3.2% 6.6% Hartland-Lakeside (K-8) 8.5% 18.1% 5.5% 9.2% Kettle Moraine 4.0% 8.7% 7.0% 7.8% Kewaskum 5.4% 6.3% 5.6% 12.9% Lake Country (K-8) 0.0% 9.3% 4.9% 10.5% Maple Dale - Indian Hills (K-8) 5.1% 2.1% 5.6% 11.6% Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 9.5% 2.8% 13.7% Oconomowoc 7.0% 8.8% 9.7% 9.6% 9.7% 9.6% 9.7% 9.7% 9.6% 9.7% 9.6% 9.7% 9.7% 9.6% 9.7% 9.7% 9.6% 9.7% 9.7% 9.6% 9.7% 9.7% 9.7% 9.7% 9.7% 9.7% 9.7% 9.7			8.2%	5.4%	3.2%
Hartland-Lakeside (K-8)		12.5%	10.5%	12.3%	2.4%
Kettle Moraine 4.0% 8.7% 7.0% 7.8% Kewaskum 5.4% 6.3% 5.6% 12.9% Lake Country (K-8) 0.0% 9.3% 4.9% 10.5% Maple Dale - Indian Hills (K-8) 5.0% 10.0% 7.5% 7.3% Menomonee Falls 5.1% 2.1% 5.6% 11.6% Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Metron (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8	Hartford UHS (9-12)	6.0%	9.8%	3.2%	6.6%
Kewaskum 5.4% 6.3% 5.6% 12.9% Lake Country (K-8) 0.0% 9.3% 4.9% 10.5% Maple Dale - Indian Hills (K-8) 5.0% 10.0% 7.5% 7.3% Menomonee Falls 5.1% 2.1% 5.6% 11.6% Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% <t< td=""><td>Hartland-Lakeside (K-8)</td><td>8.5%</td><td>18.1%</td><td>5.5%</td><td>9.2%</td></t<>	Hartland-Lakeside (K-8)	8.5%	18.1%	5.5%	9.2%
Lake Country (K-8) 0.0% 9.3% 4.9% 10.5% Maple Dale - Indian Hills (K-8) 5.0% 10.0% 7.5% 7.3% Menomonee Falls 5.1% 2.1% 5.6% 11.6% Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.6% 5.7% 7.0% 9.7% Pewaukee 7.6% <td< td=""><td>Kettle Moraine</td><td>4.0%</td><td>8.7%</td><td>7.0%</td><td>7.8%</td></td<>	Kettle Moraine	4.0%	8.7%	7.0%	7.8%
Maple Dale - Indian Hills (K-8) 5.0% 10.0% 7.5% 7.3% Menomonee Falls 5.1% 2.1% 5.6% 11.6% Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richmond (K-8) 3.2%	Kewaskum	5.4%	6.3%	5.6%	12.9%
Menomonee Falls 5.1% 2.1% 5.6% 11.6% Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Oconomowoc 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 3.2% 19.4% </td <td>Lake Country (K-8)</td> <td>0.0%</td> <td>9.3%</td> <td>4.9%</td> <td>10.5%</td>	Lake Country (K-8)	0.0%	9.3%	4.9%	10.5%
Mequon-Thiensville 4.8% 11.0% 8.7% 10.3% Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Per Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 3.2% 19.4% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.	Maple Dale - Indian Hills (K-8)	5.0%	10.0%	7.5%	7.3%
Merton (K-8) 1.5% 8.2% 5.2% 1.8% Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 3.2% 19.4% 10.0% 1.9% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8%	Menomonee Falls	5.1%	2.1%	5.6%	11.6%
Milwaukee 8.8% 6.2% 9.7% 14.1% Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 3.2% 19.4% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9%	Mequon-Thiensville	4.8%	11.0%	8.7%	10.3%
Mukwonago 6.5% 8.0% 4.8% 6.2% Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richfield (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0%	Merton (K-8)	1.5%	8.2%	5.2%	1.8%
Muskego-Norway 4.9% 8.3% 4.9% 6.1% New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 19.4% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5%	Milwaukee	8.8%	6.2%	9.7%	14.1%
New Berlin 8.0% 11.4% 12.7% 15.9% Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richfield (K-8) 3.2% 19.4% 10.0% 19.4% Richfield (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5%<	Mukwonago	6.5%	8.0%	4.8%	6.2%
Nicolet UHS (9-12) 2.6% 7.9% 6.4% 2.6% North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Swallow (K-8) 4.9% 5.0% </td <td>Muskego-Norway</td> <td>4.9%</td> <td>8.3%</td> <td>4.9%</td> <td>6.1%</td>	Muskego-Norway	4.9%	8.3%	4.9%	6.1%
North Lake (K-8) 17.9% 3.6% 14.3% 3.7% Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1%	New Berlin	8.0%	11.4%	12.7%	15.9%
Northern Ozaukee 3.7% 9.5% 2.8% 13.7% Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% West Allis 11.4% 12.9%	Nicolet UHS (9-12)	2.6%	7.9%	6.4%	2.6%
Oak Creek-Franklin 8.1% 9.9% 4.9% 7.8% Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Bend 5.1% 6.0% 9.4%<	North Lake (K-8)	17.9%	3.6%	14.3%	3.7%
Oconomowoc 7.0% 8.8% 9.7% 9.6% Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0%	Northern Ozaukee	3.7%	9.5%	2.8%	13.7%
Pewaukee 7.6% 5.7% 7.0% 9.7% Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitroll 5.0% 11.7% 2.7%	Oak Creek-Franklin	8.1%	9.9%	4.9%	7.8%
Port Washington-Saukville 3.6% 10.7% 5.9% 6.4% Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1	Oconomowoc	7.0%	8.8%	9.7%	9.6%
Richfield (K-8) 22.6% 12.5% 10.0% 19.4% Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% <td>Pewaukee</td> <td>7.6%</td> <td>5.7%</td> <td>7.0%</td> <td>9.7%</td>	Pewaukee	7.6%	5.7%	7.0%	9.7%
Richmond (K-8) 3.2% 19.4% 10.0% 0.0% Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Port Washington-Saukville	3.6%	10.7%	5.9%	6.4%
Saint Francis 3.7% 7.8% 11.4% 6.7% Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%		22.6%	12.5%	10.0%	19.4%
Shorewood 6.9% 11.9% 8.1% 4.3% Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Richmond (K-8)	3.2%	19.4%	10.0%	0.0%
Slinger 4.1% 8.0% 6.8% 5.7% South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%		3.7%	7.8%	11.4%	6.7%
South Milwaukee 5.2% 6.5% 10.0% 4.3% Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Shorewood	6.9%	11.9%	8.1%	4.3%
Stone Bank (K-8) 13.8% 13.8% 10.3% 0.0% Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%				6.8%	5.7%
Swallow (K-8) 4.9% 5.0% 7.9% 12.5% Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	South Milwaukee	5.2%	6.5%	10.0%	4.3%
Waukesha 10.4% 12.1% 10.2% 6.7% Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%			13.8%		0.0%
Wauwatosa 5.9% 8.2% 6.8% 8.5% West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Swallow (K-8)	4.9%	5.0%	7.9%	12.5%
West Allis 11.4% 12.9% 14.7% 12.5% West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Waukesha		12.1%	10.2%	6.7%
West Bend 5.1% 6.0% 9.4% 6.4% Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Wauwatosa	5.9%	8.2%	6.8%	8.5%
Whitefish Bay 7.5% 5.1% 10.0% 4.9% Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	West Allis	11.4%	12.9%	14.7%	12.5%
Whitnall 5.0% 11.7% 2.7% 7.3% Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	West Bend			9.4%	6.4%
Metro Milwaukee 8.0% 8.5% 9.1% 10.6% Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Whitefish Bay	7.5%	5.1%	10.0%	4.9%
Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%					7.3%
Green Bay 6.3% 7.2% 8.9% 9.1% Kenosha 9.6% 2.1% 2.3% 18.8%	Metro Milwaukee	8.0%	8.5%	9.1%	10.6%
					9.1%
	Kenosha	9.6%	2.1%	2.3%	18.8%
Madison 8.4% 14.9% 13.5% 10.2%	Madison				10.2%
	Racine		7.2%	6.1%	11.0%
State of Wisconsin 6.3% 8.3% 8.0% 9.0% Source: Wisconsin Dept. of Public Instruction			8.3%	8.0%	9.0%

Source: Wisconsin Dept. of Public Instruction



HOW OLD ARE THE TEACHERS WHO ENTER THE WORKFORCE?

Now that we have quantified how many teachers have entered the profession in recent years, we can explore characteristics like age and experience. **Table 13** shows the average age of public school teachers who entered the workforce after each school year. In the most recent year, the average age of a teacher entering the profession was 33.9 years across the state and 34.5 years in the Milwaukee area.

Table 13: What is the average age of a teacher who entered the workforce in each year?

	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Metro Milwaukee	36.1	34.6	35.1	34.5
State of Wisconsin	34.5	33.8	34.3	33.9

Source: Wisconsin Dept. of Public Instruction

Looking at the data over time presents several interesting findings. First, teachers entering Milwaukee area districts are older than their statewide peers in each year. Second, the average age has decreased. The average age of a teacher who entered the workforce following the 2009-10 school year was 34.5 years statewide and 36.1 years in the region.

The fall in average age over time may be attributed to one of two causes. Either there a more young teachers entering the workforce, or there are fewer older teachers entering the workforce. **Table 14** addresses this question by showing the age groups of Wisconsin teachers who entered the workforce.

Table 14: What is the distribution of entering Wisconsin teachers across each age group?

		_		
Age Group	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Under 25	13.5%	13.2%	13.8%	14.9%
20s	47.4%	49.4%	48.2%	48.6%
30s	24.8%	24.9%	25.2%	25.4%
40s	15.1%	14.9%	14.4%	14.6%
50s	8.5%	7.8%	8.4%	8.1%
60 +	4.2%	3.1%	3.8%	3.3%

Source: Wisconsin Dept. of Public Instruction

Among public school teachers throughout the state who entered the profession in the most recent year, 48.6% were in their 20s, 25.4% were in their 30s, 14.6% were in their 40s, 8.1% were in their 50s, and 3.3% were 60 and older. Teachers in their 20s make up nearly half of all teachers entering the workforce in any given year. However, as we have mentioned, this group is not dominated by 23-year-olds fresh out of college. Teachers under the age of 25 comprise between 13-15% of entering teachers in any given year.

These data also reveal interesting patterns for mid- and late-career changers. In any given year, about 40% of entering teachers are in their 30s and 40s. Moreover, 11.4% of entering teachers in 2013-14 were age 50 and over. These senior teachers comprise a smaller portion of entering teachers today as compared to 2009-10, with the lowest representation in the year following the adoption of Act 10.



Table 15 provides a similar look at age groups for Metro Milwaukee. Of the area teachers who entered the workforce in the 2013-14 school year, 44.9% were in their 20s, 26.7% were in their 30s, 16.2% were in their 40s, 9.8% were in their 50s, and 2.4% were 60 and older. **Compared to the state, our region has a smaller percentage of teachers in their 20s entering the workforce and a higher percentage of teachers in their 30s, 40s, and 50s.** Teachers under the age of 25 comprise just 12.6% of entering teachers, a smaller portion than Wisconsin as a whole.

Table 15: What is the distribution of entering Metro Milwaukee teachers across each age group?

Age Group	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Under 25	9.8%	11.8%	13.0%	12.6%
20s	38.0%	43.7%	43.6%	44.9%
30s	29.3%	27.1%	26.2%	26.7%
40s	18.1%	18.0%	16.5%	16.2%
50s	9.9%	8.3%	10.2%	9.8%
60 +	4.7%	2.9%	3.5%	2.4%

Source: Wisconsin Dept. of Public Instruction

Over time, the number of teachers in their 20s entering the workforce has increased, up from 38% in the 2010-11 school year. Over this same period, teachers in every other age group comprise a smaller portion of the entering workforce. Despite their diminished representation among entering teachers, mid- and late-career changers in Metro Milwaukee make up a larger portion of entering teachers than across the state. It should be noted that in the baseline year, teachers in their 50s and 60s comprised nearly 15 percent of the entering workforce, though this group now represents 12.2%. The decline in late career-changers may pose staffing challenges for districts in the region.

The diverse age groups of entering teachers also may present challenges to schools and districts. What is the best way to engage entering teachers across the age spectrum to develop effective instructors? Does a 28 year-old entering teacher need different supports than a 45 year-old entering teacher? How should a veteran teacher in his or her 30s best mentor an entering teacher who may be 20 years their senior? These are questions that should be contemplated by districts, and the answers should be used to adapt their support and development practices across the gamut of teachers entering the workforce.

WHAT IS THE EXPERIENCE LEVEL OF THOSE WHO ENTER THE WORKFORCE?

Table 16 illustrates the average years of teaching experience of public school teachers who entered the profession before each school year. In the most recent year, the average Wisconsin teacher who entered the workforce had 4.2 years of experience, slightly higher than the average of 4 years among teachers entering Metro Milwaukee districts.

Table 16: What is the average years of experience of a teacher who entered the workforce in each year?

	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Metro Milwaukee	6.0	5.2	4.9	4.0
State of Wisconsin	5.2	4.5	4.6	4.2

Source: Wisconsin Dept. of Public Instruction



In Wisconsin as well as Metro Milwaukee, the average experience of a teacher who entered the workforce has declined over time. The statewide average fell by one year. For districts in the Milwaukee area, however, the average experience level decreased by two years over the same period. Up until 2013-14, teachers entering Milwaukee area districts had more experience than their peers elsewhere in the state. Both the statewide and local trends point to fewer teachers with experience returning to the profession and a greater reliance on new, less experienced teachers in the workforce.

Table 17 provides a breakdown of years of experience among Wisconsin teachers who enter the workforce. The vast majority of those entering the workforce – 75.5% – are new educators with less than five years of experience. Indeed, 59.2% of entering teachers are in their first year of teaching. However, there is also evidence of people returning to the profession after some period of time away, as nearly a quarter of entering teachers have more than five years of experience.

Table 17: What is the distribution of entering Wisconsin teachers across each experience group?

Years of Experience	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Less than 1	50.3%	53.7%	54.5%	59.2%
Less than 5	69.4%	72.8%	73.9%	75.5%
5 to 10	12.6%	12.8%	11.1%	11.2%
10 to 15	7.9%	6.1%	5.9%	5.5%
15 to 20	4.1%	3.2%	3.5%	2.9%
20 +	6.3%	5.1%	5.5%	4.8%

Source: Wisconsin Dept. of Public Instruction

Over time, there has been a shift towards teachers with no experience entering Wisconsin classrooms. In the 2010-11 school year, 50.3% of entering teachers were in their first year in the classroom. By 2013-14, this group grew by nearly nine percentage points. Over the same period, the percentage of teachers returning to the workforce with more than 10 years of experience fell from 18.3% to 13.2%. The data suggest that fewer Wisconsin teachers with experience are returning to the profession than they once did.

Looking at the same distribution for Metro Milwaukee in **Table 18**, we see the region largely mirrors the state, with two exceptions. First, teachers in their first year – 62.3% – make up a higher portion of entering teachers as compared to the state. Second, teachers with more than 10 years of experience – 13.7% – make up a greater portion of those entering the regional workforce. However, Greater Milwaukee follows the same hiring patterns over time. Teachers with no prior experience comprised 44.5% of entering teachers in 2010-11, but grew to 62.3% in 2013-14. Moreover, those with more than 10 years of experience declined from 21.7% of entering teachers to 13.7% over the same period.



Table 18: What is the distribution of entering Metro Milwaukee teachers across each experience group?

Years of Experience	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Less than 1	44.8%	50.2%	55.3%	62.3%
Less than 5	62.5%	67.1%	72.2%	75.5%
5 to 10	15.7%	14.5%	9.8%	10.8%
10 to 15	9.8%	8.1%	7.9%	6.6%
15 to 20	4.6%	4.5%	4.1%	3.2%
20 +	7.3%	5.8%	6.0%	3.9%

Source: Wisconsin Dept. of Public Instruction

Looking at the experience levels of teachers entering the workforce highlights two main trends. First, there is a decrease in the number and percentage of experienced teachers returning to the workforce. This decline has been consistent over time. Second, there is an increase in the number and percentage of teachers who enter the workforce with no experience. However, with an average age of roughly 34, these new teachers are not necessarily young.

Hiring teachers who are new to the profession is not necessarily problematic, and indeed is essential to the health and vitality of the workforce. However, when nearly two-thirds of teachers entering Metro Milwaukee districts have no prior experience, there is a greater onus on schools and districts to bring these new staff members up to speed and provide them with the support and professional development necessary to become effective teachers. Based on our analysis of those who leave the workforce, there is data to suggest that may not be happening.



THE POSSIBLE IMPACTS OF THE TEACHING WORKFORCE TRANSITION

A central question to our analysis is whether there are enough teachers entering the profession to replace those who are leaving. As **Table 19** shows, the answer is "yes" in some years, and "no" in others. In only the last two years has the state hired more teachers than the number who left. In Metro Milwaukee districts, there have been fewer hires than vacancies in all but the most recent year.

Table 19: Difference between teachers leaving and entering the workforce

	Between 2009-10 and 2010-11	Between 2010-11 and 2011-12	Between 2011-12 and 2012-13	Between 2012-13 and 2013-14
Metro Milwaukee Teachers Leaving	1,223	1,870	1,375	1,498
Metro Milwaukee Teachers Entering	1,211	1,231	1,303	1,526
Difference	-12	-639	-72	28
Wisconsin Teachers Leaving	4,173	6,507	4,688	4,932
Wisconsin Teachers Entering	3,819	4,911	4,731	5,370
Difference	-354	-1,596	43	438

Source: Wisconsin Dept. of Public Instruction

Although there have been more hires than departures in recent years, there were still 1,478 fewer teachers in the state in 2013-14, and 700 fewer in the region, compared with 2009-10. The practical result of this decrease is a rise in the student/teacher ratio. In 2009-10, there were 14.2 students per teacher in the state and 15.7 per teacher in the Milwaukee area. By 2013-14, those ratios had risen to 14.6 students for the state and 16.4 students for the region. These changes may seem insignificant, but a further shrinking of the workforce combined with steady K-12 enrollments may push the ratio to levels where academic achievement may be affected.

A pertinent question is whether this problem may grow worse because districts are facing a wave of retirements in the coming years. **Table 20** provides insight by showing the percentage of the teacher workforce age 50 and over. This group represents those who have reached the minimum retirement age of 55 as well as those who will do so in the next few years.

Table 20: Percentage of teaching workforce aged 50 and over

	2009-10	2010-11	2011-12	2012-13	2013-14
Metro Milwaukee	31.7%	31.9%	28.7%	28.2%	26.7%
Wisconsin	32.2%	32.1%	29.3%	28.7%	27.8%

Source: Wisconsin Dept. of Public Instruction

About 27% of the workforce in Metro Milwaukee, and 28% statewide, fell into this 'retirement zone' as of the 2013-14 school year. Teachers in the retirement zone comprise a smaller portion of the workforce than in the baseline year of 2009-10, though the group still represents a sizable amount of educators. Their gradual departure from the profession likely can be managed over the near term. However, future policy changes that might accelerate the departure of these retirement-eligible teachers may present staffing challenges to districts.



Also, it is important to recognize that while districts seem to be managing the teacher transitions thus far, their continued ability to do so is predicated on a steady and stable supply of new teachers. As the following section illustrates, however, the supply of new teachers is neither steady, nor stable.



THE TEACHER PIPELINE

The teacher preparation programs throughout Wisconsin generate a pool of new teachers who enter the profession each year. Using data submitted for the annual federal Title II reports, we can quantify the enrollment and completion figures and show how they have changed over time.

HOW MANY STUDENTS ARE ENROLLED IN TEACHER PREP PROGRAMS?

Table 21 shows enrollment in Wisconsin teacher preparation programs for the six-year period from 2008-09 to 2013-14. In 2013-14, there were 8,887 students preparing for their initial teacher license. About 69% of enrollments – 6,138 students – were enrolled at a public university, while 2,749 students attended a private program. The vast majority of students – 95.5% – attended a traditional program that culminates in a bachelor's degree, while 402 students were enrolled in alternative, accelerated programs that help college graduates prepare for teacher licensure.

UW-Stevens Point had the largest enrollment with 854 students in 2013-14, followed by UW-Madison (718 students), and UW-Stout (701 students). At the other end of the spectrum, some private colleges had few students preparing to be teachers, including Northland College (8 students), Lawrence University (15 students), and Mount Mary College (16 students).

A casual look at the data shows the number of students enrolled in teacher preparation programs has declined sharply over the six-year period. Statewide, enrollment levels have fallen 27.9%, from 12,323 students in the 2008-09 school year. Public universities saw the biggest impact of the decline with enrollments falling 31.5% over the six years. Private colleges experienced a decline of 18.2% over the same period. Indeed, 28 of the 41 programs in the sample saw enrollments fall since 2008-09.

Looking at individual programs, UW-Oshkosh was affected the most, with enrollment falling by 1,526 students (70.1%) since 2008-09. UW-Whitewater and UW-Eau Claire also experienced large decreases of 679 and 272 students, respectively. Some colleges appear to have added students over time, though enrollments have declined from their peak. For example, UW-Milwaukee had 499 students enrolled in its program in 2013-14, an increase of 251 students compared to 2008-09. However, enrollments fell by nearly 50% from a peak of 962 students in 2010-11.

Given that our analysis of teachers leaving the workforce pointed to a break in trend data following adoption of Act 10, it is logical to ask if teacher enrollments were impacted, as well. We see that enrollment in teacher prep programs peaked statewide in 2009-10 and has been steadily declining since. Hence, the enrollment decrease already had started when Act 10 was proposed and implemented.

If Act 10 was dissuading students from becoming teachers, then the enrollment decrease would have been expected to accelerate in 2011-12, the year following implementation. However, the data show that the enrollment decrease in 2011-12 (6.6%) was nearly the same as in 2010-11 (6.7%). The decrease did nearly double to 13.1% in 2012-13, which may indicate a lagged impact of Act 10, but which also may have been caused by other factors.



Table 21: Enrollment in teacher preparation programs over time

Table 21. Emonificit in teacher prop		Total	Total	Total	Total	Total	Total	Change	%Change
Program	Program	Enrollment	Enrollment	Enrollment	Enrollment	Enrollment	Enrollment	2008-09 to	2008-09 to
r rogram	Type	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2013-14	2013-14
act!: Alternative Careers in Teaching	Alternative	22	14	50	39	45	22	0	0.0%
Alverno College	Traditional	126	143	430	371	274	178	52	41.3%
Beloit College	Traditional	57	64	60	59	49	32	-25	-43.9%
Cardinal Stritch University	Traditional	355	458	516	494	292	265	-90	-25.4%
Carroll University	Traditional	214	221	210	153	137	105	-109	-50.9%
Carthage College	Traditional	240	109	74	63	137	79	-161	-67.1%
CESA 1: Proficiency-Based Licensure	Alternative	64	27	28	37	35	96	32	50.0%
CESA 6: Residency in Teacher Education	Alternative	26	12	20	41	65	70	44	169.2%
CESA 7: Teacher Development Center	Alternative	13	11	14	1	3	9	-4	-30.8%
College of Menominee Nation	Alternative	0	82	31	97	78	51	51	62.2%
Concordia University Wisconsin	Traditional	433	295	336	311	292	239	-194	-44.8%
Concordia University Wisconsin	Alternative	100	107	71	8	0	0	-100	-100.0%
Edgewood College	Traditional	310	346	348	497	423	506	196	63.2%
Lakeland College	Traditional	63	60	61	60	49	41	-22	-34.9%
Lawrence University	Traditional	23	33	28	18	24	15	-8	-34.8%
Maranatha Baptist Bible College	Traditional	99	108	116	94	73	73	-26	-26.3%
Marian University	Traditional	155	170	215	124	108	107	-48	-31.0%
Marquette University	Traditional	188	198	242	264	222	236	48	25.5%
Mount Mary College	Traditional	36	36	61	26	13	16	-20	-55.6%
MTEC: Milwaukee Teacher Education Center	Alternative	38	72	39	13	40	11	-27	-71.1%
NORDA, Inc.	Alternative	190	123	193	123	141	124	-66	-34.7%
Northland College	Traditional	33	35	32	28	19	9	-24	-72.7%
Ripon College	Traditional	47	53	51	55	15	17	-30	-63.8%
Silver Lake College	Traditional	33	40	55	55	38	36	3	9.1%
St. Norbert College	Traditional	356	353	351	360	275	199	-157	-44.1%
University of Wisconsin-Eau Claire	Traditional	548	586	578	693	353	276	-272	-49.6%
University of Wisconsin-Green Bay	Traditional	324	326	326	343	277	297	-27	-8.3%
University of Wisconsin-La Crosse	Traditional	674	792	701	711	677	620	-54	-8.0%
University of Wisconsin-La Crosse University of Wisconsin-Madison	Traditional	690	672	696	689	718	718	28	4.1%
University of Wisconsin-Milwaukee	Traditional	248	175	962	869	506	499	251	101.2%
University of Wisconsin-Oshkosh	Traditional	2,176	1,593	631	580	650	650	-1,526	-70.1%
University of Wisconsin-Oshkosh University of Wisconsin-Parkside	Traditional	111	170	110	43	0	8	-1,320	-92.8%
University of Wisconsin-Platteville	Traditional	334	387	364	225	254	252	-82	-24.6%
University of Wisconsin-Platteville University of Wisconsin-River Falls	Traditional	550	581	488	426	310	370	-180	-32.7%
University of Wisconsin-Stevens Point	Traditional	896	903	957	908	858	854	-42	-32.7 % -4.7%
University of Wisconsin-Stevens Point University of Wisconsin-Stout	Traditional	889	903 807	957 849	908 754	746	701	-42 -188	-4.7% -21.1%
University of Wisconsin-Stout University of Wisconsin-Superior	Traditional	154	212	224	75 4 191	176	205	-100 51	33.1%
University of Wisconsin-Superior University of Wisconsin-Whitewater	Traditional	1,367	1,919	937	917	942	205 688	-679	-49.7%
Urban Education Fellows Program	Alternative		1,919 28	30	22	942 12	19	-679 -10	
	Traditional	29 40	28 234	206	22 142	12 87	78	-10 38	-34.5% 95.0%
Viterbo University									
Wisconsin Lutheran College	Traditional	72	69	89	94	148	116	2.426	61.1%
State of Wisconsin		12,323	12,624	11,780	10,998	9,561	8,887	-3,436	-27.9%
Public		8,961	9,123	7,823	7,349	6,467	6,138	-2,823	-31.5%
Private		3,362	3,501	3,957	3,649	3,094	2,749	-613	-18.2%
All Traditional		11,841	12,148	11,304	10,617	9,142	8,485	-3,356	-28.3%
All Alternative		482	476	476	381	419	402	-80	-16.6%

Source: U.S. Dept. of Education Title II Reports



HOW DO WISCONSIN ENROLLMENT TRENDS COMPARE WITH OTHER STATES?

Another way to assess potential effects of Act 10 is to compare Wisconsin teacher preparation enrollment levels to those in other states, since the legislation was unique to Wisconsin at the time. **Table 22** shows enrollment at teacher preparation programs in neighboring states, as well as the national figures, for the same six-year period used above. Two patterns are apparent. First, the nation and each neighboring state saw enrollment levels decline over the period. Second, three of the four neighboring states saw larger enrollment declines than Wisconsin.

Table 22: Enrollment in teacher preparation programs over time

State	Total Enrollment 2008-09	Total Enrollment 2009-10	Total Enrollment 2010-11	Total Enrollment 2011-12	Total Enrollment 2012-13	Total Enrollment 2013-14	Change 2008-09 to 2013-14	%Change 2008-09 to 2013-14
Illinois	34,184	34,103	32,433	26,045	17,934	14,699	-19,485	-57.0%
Iowa	9,243	11,984	9,336	9,308	7,885	7,142	-2,101	-22.7%
Michigan	23,372	22,128	18,402	18,483	14,372	11,287	-12,085	-51.7%
Minnesota	12,172	11,565	10,403	8,856	7,300	7,549	-4,623	-38.0%
Wisconsin	12,323	12,624	11,780	10,998	9,561	8,887	-3,436	-27.9%
Nation	719,081	725,518	684,801	623,190	499,800	465,189	-253,892	-35.3%

Source: U.S. Dept. of Education Title II Reports

We cannot say whether Act 10 and its accompanying discourse about the teaching profession influenced teacher enrollments in Wisconsin. It is clear, however, that the decline in enrollment in teacher preparation programs that our state has experienced in recent years is part of a larger regional and national trend impacting the teaching profession.

WHAT ARE THE DEMOGRAPHICS OF STUDENTS PREPARING TO BE TEACHERS?

Across all teacher prep programs in Wisconsin, male students comprise about 25% of enrollments in any given year. The percentage of male students is nearly identical between public and private colleges, though alternative preparation programs do have slightly higher male representation of about 30%. These enrollment patterns do not differ from the gender breakdown of the current teacher profession, where males comprise between 25% and 26% of the workforce in any given year.

Table 23 explores the race and ethnicity of Wisconsin students preparing to become teachers. Across all programs, 9.5% of students enrolled in 2013-14 were non-white. This group of future teachers is more diverse than the current workforce, of which only 4.7% of Wisconsin teachers are non-white. However, the enrollment is less diverse than the Metro Milwaukee workforce, of which 10.9% of teachers are non-white.

Teacher prep programs and the current teacher workforce are substantially less diverse than the student population. Across Wisconsin, 27.6% of public school students are non-white, while in Metro Milwaukee, the figure rises to 45.7% of students. Research suggests there are academic benefits to having diverse teachers in classrooms with diverse students.⁷ **Teacher preparation program**

⁷ Dee, T.S. (2004). *Teachers, race and student achievement in a randomized experiment*. The Review of Economics and Statistics, 86(1), 195-210.



enrollments do not reflect the diversity of Wisconsin students, which presents a challenge for schools and districts seeking to increase diversity among their educators.

As a sector, private colleges have a greater percentage of non-white students (16%) preparing to become teachers than public universities (6.6%). Alternative programs have the highest percentage of minority enrollment, with 24.2% of students non-white, though their small enrollment numbers can result in large percentage changes.

Among traditional teacher prep programs, the College of Menominee Nation enrolls the highest percentage of non-white students (72.5%). Larger teacher prep programs with diverse enrollments include Cardinal Stritch (27.9%), Alverno (23%), and UW-Milwaukee (18.6%). At the other end of the spectrum, several colleges under-enroll minority students, including UW-Platteville (1.2%), Viterbo University (1.3%), and UW-La Crosse (2.9%). Four small programs – Northland, Ripon, Silver Lake, and UW-Parkside – enrolled no minority students in the 2013-14 school year.

Diversity among teacher prep enrollments has increased over time, up 2.4 percentage points since 2008-09. The increased diversity is a direct result of changes within private programs, where non-white enrollments increased from 9.3% to 16%. Non-white enrollment at UW programs, however, increased just 0.4 points over the same period.

All told, 26 programs saw a rise in student diversity, 14 programs experienced a decrease in student diversity, and one program had no change. Alverno posted one of the largest increases, with non-white student enrollment rising 15.1 percentage points since 2008-09. Other programs with large increases include Cardinal Stritch (13.8 points) and UW-Milwaukee (8.2 points). Alternately, UW-Oshkosh saw a 6 percentage point drop in non-white enrollment, while Carthage (-4.1 points) and UW-Green Bay (-4 points) also posted large declines.

It is a positive sign that diversity is increasing within teacher preparation programs. However, enrollments will need to further diversify in order to reflect public school students in Wisconsin.

HOW MANY STUDENTS COMPLETE TEACHER PREP PROGRAMS?

Teacher prep program enrollments provide one look at the pool of future teachers. However, students often change majors or fail to complete a degree. Looking at the number of students who complete teacher prep programs can provide a more accurate view of the pool of future educators.

Table 24 provides the number of teacher prep program completers for the state and individual programs over time. In 2013-14, there were 3,741 students who completed a teacher prep program in Wisconsin. This includes anyone who completed a program during the school year, regardless of when they began their studies. Nearly two thirds of completers (2,458 students) attended a public university, while the other third completed a private teacher prep program. The vast majority of students completed a traditional program, while only 216 completed an alternative program.

With their high enrollment numbers, UW colleges naturally produce a high number of completers. UW-Milwaukee leads the state with 356 students completing the teacher prep program in 2013-14. Other programs with high completion figures include UW-Whitewater (305 students), UW-Stevens Point (280), and UW-Madison (275). Edgewood is the largest private program with 226 completers, followed by Cardinal Stritch (148), and Marquette (109).



Table 23: Enrollment of non-white students in teacher preparation programs over time

	Program	Percent	Percent	Percent	Percent	Percent	Percent	Change
Program	Type	Non-White	Non-White	Non-White	Non-White	Non-White	Non-White	2008-09 to
and Allementing Company in Tanaking		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2013-14
act!: Alternative Careers in Teaching	Alternative	0.0%	0.0%	6.0%	7.7%	4.4%	0.0%	No Change
Alverno College	Traditional	7.9%	10.5%	20.5%	17.8%	23.4%	23.0%	15.1 pts
Beloit College	Traditional	14.0%	12.5%	11.7%	8.5%	20.4%	21.9%	7.8 pts
Cardinal Stritch University	Traditional	14.1%	12.7%	16.5%	12.8%	25.7%	27.9%	13.8 pts
Carroll University	Traditional	1.9%	3.2%	5.7%	8.5%	2.9%	12.4%	10.5 pts
Carthage College	Traditional	10.4%	7.3%	9.5%	1.6%	5.1%	6.3%	- 4.1 pts
CESA 1: Proficiency-Based Licensure	Alternative	73.4%	66.7%	64.3%	35.1%	51.4%	55.2%	- 18.2 pts
CESA 6: Residency in Teacher Education	Alternative	11.5%	16.7%	15.0%	14.6%	4.6%	0.0%	- 11.5pts
CESA 7: Teacher Development Center	Alternative	61.5%	45.5%	7.1%	0.0%	33.3%	77.8%	16.2 pts
College of Menominee Nation	Alternative	N/A	69.5%	58.1%	73.2%	64.1%	72.5%	3.0 pts
Concordia University Wisconsin	Traditional	2.1%	3.4%	2.7%	3.2%	5.1%	5.4%	3.4 pts
Concordia University Wisconsin	Alternative	8.0%	2.8%	5.6%	0.0%	N/A	N/A	- 8.0 pts
Edgewood College	Traditional	8.7%	10.1%	12.9%	19.5%	13.5%	15.6%	6.9 pts
Lakeland College	Traditional	6.3%	3.3%	9.8%	18.3%	4.1%	4.9%	- 1.5 pts
Lawrence University	Traditional	13.0%	3.0%	10.7%	11.1%	0.0%	20.0%	7.0 pts
Maranatha Baptist Bible College	Traditional	8.1%	4.6%	3.4%	2.1%	2.7%	8.2%	0.1 pt
Marian University	Traditional	5.8%	6.5%	4.7%	4.0%	5.6%	6.5%	0.7 pts
Marquette University	Traditional	12.2%	4.0%	7.4%	8.3%	9.5%	16.5%	4.3 pts
Mount Mary College	Traditional	11.1%	2.8%	6.6%	23.1%	30.8%	25.0%	13.9 pts
MTEC: Milwaukee Teacher Education Center	Alternative	26.3%	27.8%	35.9%	30.8%	20.0%	90.9%	64.6 pts
NORDA, Inc.	Alternative	3.7%	5.7%	4.1%	7.3%	10.6%	7.3%	3.6 pts
Northland College	Traditional	9.1%	5.7%	3.1%	0.0%	5.3%	0.0%	- 9.1 pts
Ripon College	Traditional	2.1%	1.9%	0.0%	0.0%	0.0%	0.0%	- 2.1 pts
Silver Lake College	Traditional	3.0%	2.5%	10.9%	5.5%	2.6%	0.0%	- 3.0pts
St. Norbert College	Traditional	3.4%	2.8%	4.3%	4.7%	4.7%	6.0%	2.7 pts
University of Wisconsin-Eau Claire	Traditional	2.6%	2.2%	3.6%	3.5%	3.7%	4.7%	2.2 pts
University of Wisconsin-Green Bay	Traditional	7.7%	8.9%	8.9%	8.7%	5.1%	3.7%	- 4.0 pts
University of Wisconsin-La Crosse	Traditional	3.9%	3.8%	4.7%	4.5%	4.3%	2.9%	- 1.0 pt
University of Wisconsin-Madison	Traditional	10.9%	11.5%	9.3%	10.6%	11.7%	13.2%	2.4 pts
University of Wisconsin-Milwaukee	Traditional	10.5%	16.6%	17.5%	12.7%	22.1%	18.6%	8.2 pts
University of Wisconsin-Oshkosh	Traditional	11.5%	7.8%	4.4%	5.2%	4.3%	5.5%	- 6.0 pts
University of Wisconsin-Parkside	Traditional	20.7%	15.3%	13.6%	7.0%	N/A	N/A	- 20.7 pts
University of Wisconsin-Platteville	Traditional	1.5%	0.8%	1.4%	3.1%	2.8%	1.2%	- 0.3 pts
University of Wisconsin-River Falls	Traditional	1.6%	2.1%	1.4%	3.5%	0.6%	3.0%	1.3 pts
University of Wisconsin-Stevens Point	Traditional	1.9%	2.8%	3.7%	4.0%	4.9%	5.9%	0.9 pts
University of Wisconsin-Stout	Traditional	1.2%	6.4%	5.2%	5.6%	6.0%	4.9%	3.6 pts
University of Wisconsin-Superior	Traditional	0.0%	1.4%	2.2%	2.1%	2.8%	2.9%	2.9 pts
University of Wisconsin-Whitewater	Traditional	3.4%	3.8%	3.0%	5.3%	5.7%	5.4%	2.0 pts
Urban Education Fellows Program	Alternative	20.7%	14.3%	23.3%	31.8%	33.3%	31.6%	10.9 pts
Viterbo University	Traditional	5.0%	5.1%	5.8%	1.4%	8.0%	1.3%	- 3.7 pts
Wisconsin Lutheran College	Traditional	4.2%	2.9%	2.2%	2.1%	6.1%	9.5%	5.3 pts
State of Wisconsin	Taditional	7.1%	6.5%	7.7%	8.4%	8.8%	9.5%	2.4 pts
Public		6.2%	5.5%	6.2%	6.3%	6.7%	6.6%	0.4 pts
Private		9.3%	5.5% 9.2%	10.7%	12.8%	13.3%	16.0%	6.6 pts
I IIVale								0.0 pts
All Traditional		6.6%	5.8%	7.5%	8.2%	8.6%	8.9%	2.4 pts

Source: U.S. Dept. of Education Title II Reports



Table 24: Teacher preparation program completers over time

Table 24. Teacher preparation program completers over time Program Total Total Total Total Total Total Total Total Change % Charge % Charge											
Program	Program	Completers	Completers	Completers	Completers	Completers	Completers	2008-09 to	2008-09 to		
riogram	Туре	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2013-14	2013-14		
act!: Alternative Careers in Teaching	Alternative	8	14	10	9	11	8	0	0.0%		
Alverno College	Traditional	64	55	73	88	56	45	-19	-29.7%		
Beloit College	Traditional	10	10	9	13	14	10	0	0.0%		
Cardinal Stritch University	Traditional	144	176	218	147	151	148	4	2.8%		
Carroll University	Traditional	78	81	72	80	61	72	-6	-7.7%		
Carthage College	Traditional	87	90	110	80	98	83	-4	-4.6%		
College of Menominee Nation	Traditional	0	0	6	2	4	5	5	#DIV/0!		
Concordia University Wisconsin	Traditional	91	84	109	108	98	92	1	1.1%		
Concordia University Wisconsin	Alternative	52	45				N/A	-52	-100.0%		
CESA 1: Proficiency-Based Licensure	Alternative	21	32	30	28	25	28	7	33.3%		
CESA 6: Residency in Teacher Education	Alternative	18	11	12	34	56	62	44	244.4%		
CESA 7: Teacher Development Center	Alternative	4	4	2	3	1	0	-4	-100.0%		
Edgewood College	Traditional	91	105	112	145	159	226	135	148.4%		
Lakeland College	Traditional	41	21	34	16	22	23	-18	-43.9%		
Lawrence University	Traditional	23	33	27	18	27	24	1	4.3%		
Maranatha Baptist University	Traditional	25	46	33	34	29	31	6	24.0%		
Marian University	Traditional	55	41	63	51	28	34	-21	-38.2%		
Marguette University	Traditional	66	86	106	102	117	109	43	65.2%		
Mount Mary University	Traditional	16	27	25	15	14	103	-6	-37.5%		
MTEC: Milwaukee Teacher Education Center	Alternative	33	68	39	13	40	31	-2	-6.1%		
NORDA, Inc.	Alternative	41	70	73	62	52	76	35	85.4%		
Northland College	Traditional	17	8	18	9	15	8	-9	-52.9%		
Ripon College	Traditional	12	27	22	24	29	10	-2	-16.7%		
Silver Lake College	Traditional	50	28	32	22	33	12	-38	-76.0%		
St. Norbert College	Traditional	79	91	82	60	73	57	-22	-27.8%		
University of Wisconsin-Eau Claire	Traditional	313	341	325	362	271	232	-81	-25.9%		
University of Wisconsin-Green Bay	Traditional	122	124	140	140	116	139	17	13.9%		
University of Wisconsin-La Crosse	Traditional	208	205	234	221	252	177	-31	-14.9%		
University of Wisconsin-Madison	Traditional	353	312	352	199	275	275	-78	-22.1%		
University of Wisconsin-Madison University of Wisconsin-Milwaukee	Traditional	434	444	352	333	328	356	-78	-18.0%		
University of Wisconsin-Oshkosh	Traditional	282	284	252	274	242	215	-76 -67	-23.8%		
University of Wisconsin-Oshkosh University of Wisconsin-Parkside	Traditional	48	49	63	41	0	N/A	-48	-100.0%		
University of Wisconsin-Platteville	Traditional	123	128	129	130	147	143	20	16.3%		
University of Wisconsin-River Falls	Traditional	167	161	184	216	193	163	-4	-2.4%		
University of Wisconsin-River Falls University of Wisconsin-Stevens Point	Traditional	232	267	260	253	250	280	48	20.7%		
University of Wisconsin-Stout	Traditional	138	128	126	120	109	111	-27	-19.6%		
University of Wisconsin-Stude University of Wisconsin-Superior	Traditional	54	53	51	77	65	62	-2 <i>1</i> 8	14.8%		
University of Wisconsin-Superior University of Wisconsin-Whitewater	Traditional	313	272	316	281	295	305	-8	-2.6%		
Urban Education Fellows Program	Alternative	12	14	316 15	201 10	295 11	305 11	-o -1	-2.6% -8.3%		
Viterbo University	Traditional	54	58	49	46	52	28	-1 -26	-6.3% -48.1%		
	Traditional	28	19	49 27	24	37	26 40	-26 12	-46.1% 42.9%		
Wisconsin Lutheran College	rraditional										
State of Wisconsin		4,007	4,112	4,192	3,890	3,856	3,741	-266	-6.6%		
Public		2,787	2,768	2,784	2,647	2,543	2,458	-329	-11.8%		
Private		1,220	1,344	1,408	1,243	1,313	1,283	63	5.2%		
All Traditional		3,818	3,854	4,011	3,731	3,660	3,525	-293	-7.7%		
All Alternative		189	258	181	159	196	216	27	14.3%		

Source: U.S. Dept. of Education Title II Reports



Since 2008-09, the number of students completing teacher preparation programs statewide has decreased by 6.6% (266 students). The decline is attributed to the public universities, where the number of completers fell 11.8%. Private teacher prep programs actually experienced a slight increase in completers (5.2%) over the same period.

Reviewing these figures from the baseline obscures the trend of increasing program completers that reached a peak in the 2010-11 school year. If we look at the change since this high point, we see that the total number of completers has fallen by 451 students, or 10.8%. Over the same period, completers from UW programs are down 11.7%, while those completing private programs fell 8.9%.

Looking at changes to individual programs since 2008-09, we see that 15 programs have increased the number of completers, two programs saw no change, and 24 programs have fewer completers each year. Edgewood more than doubled the annual number of completers, growing from 91 in 2008-09 to 226 completers in 2013-14. The number of completers at UW-Stevens Point and Marquette grew by 48 and 43, respectively, while the alternative CESA 6: Residency in Teacher Education Program increased by 44 completers.

Despite these gains, the majority of programs are completing fewer students than in prior years. Although having the highest number of completers in 2013-14, UW-Milwaukee actually is graduating 78 fewer teachers than it did in 2008-09. Over the same period, UW-Eau Claire has 81 fewer annual completers, while UW-Madison has 78 fewer. Indeed, UW campuses comprise seven of the 10 programs with the largest declines in completers.

HOW DO WISCONSIN COMPLETION TRENDS COMPARE WITH OTHER STATES?

Table 25 shows the number of teacher preparation program completers in Wisconsin, the nation, and neighboring states over time. Despite a fall in students completing teacher preparation programs, Wisconsin fares better than most neighboring states and the nation. Illinois and Michigan have experienced significant declines in program completers since 2008-09, falling by 37.7% and 32.1%, respectively. Of the neighboring states, only lowa increased the number of program completers, growing by 40 students over the six-year period.

Table 25: Teacher preparation program completers over time

State	Total Completers 2008-09	Total Completers 2009-10	Total Completers 2010-11	Total Completers 2011-12	Total Completers 2012-13	Total Completers 2013-14	Change 2008-09 to 2013-14	%Change 2008-09 to 2013-14
Illinois	10,355	10,568	10,421	9,738	8,486	6,454	-3,901	-37.7%
Iowa	2,364	2,524	2,471	2,576	2,653	2,404	40	1.7%
Michigan	5,819	5,182	4,848	4,711	4,450	3,951	-1,868	-32.1%
Minnesota	3329	3308	3411	3587	2931	3057	-272	-8.2%
Wisconsin	4,028	4,160	4,319	4,075	3,965	3,741	-287	-7.1%
Nation	232,707	241,401	217,492	204,180	192,459	180,796	-51,911	-22.3%

Source: U.S. Dept. of Education Title II Reports

As with program enrollments, Wisconsin's decline in completers is part of a larger national trend. Across the country, the number of teacher prep program completers is down 18.4%. Thirty-four states have fewer program completers compared with 2008-09. The decline in program completers in Wisconsin is not as severe as other states or the country, but it does present challenges within our state.



METRO MILWAUKEE TEACHER PREP PROGRAMS

The federal Title II reports provide a wealth of information about teacher preparation programs in Wisconsin, though there are some limitations. Because of the time required to produce the Title II reports, the data in the report are a few years old. Additionally, the Title II reports do not include information about employment outcomes for program completers.

To address these limitations, we surveyed teacher preparation programs in Metro Milwaukee to get the most current data and to address deeper questions about employment patterns. Seven institutions responded to the survey using internal data. Admittedly, this is an incomplete view of the entire landscape of preparation programs. However, these institutions are representative of the programs that prepare a large number of teachers employed in Greater Milwaukee.

HOW MANY STUDENTS ARE ENROLLED IN METRO MILWAUKEE TEACHER PREP PROGRAMS?

Table 26 provides teacher prep program enrollment figures for the seven institutions for the 2014-15 school year as well as enrollment patterns over time. The current data show these Metro Milwaukee programs have increased enrollment from the 2013-14 academic year. Among individual programs, Cardinal Stritch added 87 students in the most recent year, while Wisconsin Lutheran College saw enrollment decrease by 46 students.

Table 26: Enrollment in Metro Milwaukee teacher preparation programs over time

Program	Total Enrollment 2008-09	Total Enrollment 2009-10	Total Enrollment 2010-11	Total Enrollment 2011-12	Total Enrollment 2012-13	Total Enrollment 2013-14	Total Enrollment 2014-15	%Change 2008-09 to 2014-15
Alverno College	126	143	430	371	274	178	196	55.6%
Cardinal Stritch University	355	458	516	494	292	265	352	-0.8%
Concordia University Wisconsin	433	295	336	311	292	239	294	-32.1%
Marquette University	188	198	242	264	222	236	238	26.6%
Mount Mary University*	36	36	61	26	13	16	49*	36.1%
University of Wisconsin-Milwaukee**	248	175	962	869	506	499	487	96.4%
Wisconsin Lutheran College	72	69	89	94	148	116	70	-2.8%
Metro Milwaukee	1,458	1,374	2,636	2,429	1,747	1,549	1,686	15.6%

Source: U.S. Dept. of Education Title II Reports and Institutional Data

Collectively, these teacher preparation programs are enrolling 15.6% more students today as compared to 2008-09. UW-Milwaukee increased enrollment by 239 students over the period, while Alverno and Marquette grew by 70 students and 50 students, respectively. Concordia saw enrollment decrease by nearly a third (139 students) since 2008-09.

The Milwaukee region, just like the state, saw teacher prep enrollments peak in the 2010-11 school year with 2,636 students. Compared to this high point, enrollments in our region fell 36%, or 950 students. In fact, each of the seven programs enrolls fewer students today than it did in 2010-11. The biggest declines occurred at Alverno (-54.4%), UW-Milwaukee (-49.4%), and Cardinal Stritch (-31.8%). Such decreases may present future staffing challenges to local schools and districts, particularly in light of the fact that nearly 27% of the teacher workforce is at or nearing retirement age, as discussed above.



^{*} Mt. Mary institutional data in recent years include declared education majors, a more inclusive definition of enrolled student than federal Title II reports

^{**} Federal data show rapid enrollment increase at UWM. We reached out to UWM officials, but they were unable to provide a reason for the increase or alternative data.

HOW MANY STUDENTS IN A GIVEN COHORT COMPLETED THE TEACHER PREP PROGRAM?

Not every student who begins a teacher prep program will complete it. College students often change their major. Moreover, some education majors have a change of heart after observation or student teaching experiences. These outcomes are not necessarily negative, as students find out the career is not a good fit.

While the federal Title II reports count the number of people who complete a teacher prep program in a given year, they do not tell us the number of students who completed the program compared to the number who started. By looking at a specific cohort entering the teacher prep program, we can understand how many students do and do not complete the program within a certain period of time.

Among survey respondents, we see that a majority of students who set out to become teachers will complete the program. At Marquette, about 95% of students in any given cohort complete the program. Wisconsin Lutheran also has a high completion rate of 91%. Over the past three years, the cohort completion rate at UW-Milwaukee is around 83%, while the rate at Concordia is about 68%.

While each of the colleges in our survey tracks students and cohorts a bit differently, we can conclude from the data that not everyone who starts a teacher prep program will complete it. As noted above, this is not necessarily a bad outcome. However, it does mean that the pool of potential teachers shrinks between the start and end of the teacher program.

HOW MANY PROGRAM COMPLETERS BECOME CERTIFIED AND TAKE A TEACHING JOB?

There is no guarantee that individuals completing a teaching program will actually take jobs as teachers. One potential obstacle is certification exams, which some colleges require students to take as part of completing the program. Over the last three years at UW-Milwaukee, between 5.2% and 11.3% of students graduated without certification. Certification is a requirement for most teaching jobs, meaning that the pool of potential teachers shrinks a bit more when students do not complete certification and licensure requirements.

Tracking employment data for program completers can be challenging and often requires colleges to survey their graduates. The data sometimes are incomplete, but nonetheless provide insight. At Concordia, about 92% of program completers take a teaching job. Marquette sees about 85-90% of program completers in any given year pursue a teaching career, while the other 10-15% attend graduate school, join the military, or seek other jobs. In a recent cohort at Cardinal Stritch, nearly 83% of program completers took a teaching job.

To become a teacher, one must enroll in a teacher prep program, complete the program, pass certification exams, and get a job with a school or district. As we have seen from local colleges and universities, the pool of potential teachers gets smaller and smaller with each step.



WHERE DO LOCAL PROGRAM COMPLETERS GET TEACHING JOBS?

A student who completes a local teacher preparation program and becomes certified is eligible to teach throughout Wisconsin, but also could opt to pursue a teaching job out of state. **Table 27** uses employment data from the colleges we surveyed to illustrate how many stay to teach in Metro Milwaukee.

Table 27: Where do local program completers get teaching jobs?

	2012-13			2013-14			2014-15		
School	Metro Milwaukee	Other Wisconsin Regions	Out of State	Metro Milwaukee	Other Wisconsin Regions	Out of State	Metro Milwaukee	Other Wisconsin Regions	Out of State
Alverno College	11	3	1	9	3	0	7	2	0
Cardinal Stritch University	57	19	15	56	31	10	N/A	N/A	N/A
Concordia University Wisconsin	11	7	9	14	11	10	16	11	20
Marquette University	28	6	12	33	2	18	26	3	8
Mount Mary University	10	0	0	8	1	1	4	0	0
University of Wisconsin-Milwaukee	65	24	N/A	76	14	N/A	108	21	N/A
Wisconsin Lutheran College	7	4	1	14	3	3	13	5	3
Total Number of Teachers	189	63	38	210	65	42	174	42	31
Percent Total	65.2%	21.7%	13.2%	66.2%	20.5%	13.2%	70.4%	17.0%	12.6%

Source: Institutional Data

As discussed above, it is challenging to track employment outcomes for program completers. For example, in 2014-15, UW-Milwaukee was able to track employment for about 47.3% of its program graduates.⁸ As such, the table above shows outcomes for those whose employment is known, which differs from the number of program completers in a given year.

The survey results indicate that 65-70% of those students completing a local teacher prep program obtain employment as a teacher in Metro Milwaukee. Interestingly, the percentage employed in other parts of Wisconsin has declined over the past three years. Moreover, the percentage of local program completers taking teaching jobs in other states decreased slightly. Keeping local program completers employed in Metro Milwaukee may help ease staffing challenges to schools and districts in the region.

⁸ UW-Milwaukee relies on a database from the Wisconsin Department of Public Instruction and therefore cannot determine completers who take teaching jobs in other states.



A LEAKY PIPELINE HAS CONSEQUENCES

Our analysis of teacher employment patterns in Wisconsin and Greater Milwaukee shows that there has been a rise in teachers leaving the workforce in recent years. As shown earlier, in some years, districts have not hired replacements for the full number of teachers who left. While trend data suggest that districts have managed the transitioning teacher workforce thus far, challenges are apparent on the horizon.

A sizable number of teachers are in late middle age and will become eligible for retirement in the near future. Teachers age 50 and over represent a smaller portion of the profession than they used to, but at 27-28% of the workforce, they remain a very sizable group that currently is or will soon be eligible for retirement. Districts must be prepared for the possibility that members of this group could exit the workforce. Combined with the need to replace younger teachers who leave the profession, the reliance on a steady influx of entering teachers becomes more important to filling vacancies. However, our examination of enrollment and completion trends in Wisconsin preparation programs suggests that the steady supply of teachers may be in jeopardy.

Teachers hired to fill vacancies come from two sources: educators who return to the workforce after some time away, and people who complete teacher preparation programs and enter the workforce for the first time. Both sources face constraints which may impact the supply of teachers.

For example, the number of experienced teachers returning to the profession has declined in recent years. Data shown earlier indicate that in Metro Milwaukee, returning teachers with more than five years of experience comprised 37.4% of entering teachers in 2009-10; by 2013-14, however, they accounted for 24.5%. This may be an indication that fewer people want to return to the profession after they have initially left the teacher workforce. If so, then it places increased importance on the supply from teacher preparation programs.

Our trend data also indicate that fewer people in recent years are enrolling in those programs. Programs across Wisconsin have seen enrollment levels fall nearly 28% in recent years, which mirrors a regional and national trend. Fewer students starting teacher prep programs will mean that fewer students will complete the programs, which the data have begun to show.

The number of people completing a teacher prep program in Wisconsin has fallen 6.6% in recent years. This decline has been especially large at the public universities, which have a mission to educate Wisconsin students and to provide access and opportunity, particularly to low-income students and students of color. Diversity is growing among teacher preparation programs, but the growth is almost entirely at private programs. Unless the UW programs can produce more teachers, the state will not be able to address the shortage of teachers of color in our public school districts.

The decline in teacher prep program completers is likely to continue and become more severe. Recent completers likely entered their programs in the 2010-11 and 2011-12 school years, when enrollment levels still were relatively high. Since 2011-12, program enrollments have fallen nearly 20%. It is reasonable, therefore, to expect the number of completers to decline sharply in the next few years as a result of the decreased enrollment levels.

All of this points to a diminishing pool of potential teachers to fill vacancies throughout the state, and particularly in Metro Milwaukee. In past years, the pool has been bolstered by out-of-state program completers coming to Wisconsin and getting a teaching license. **Table 28** shows that in recent years,



about 1,800 initial teaching licenses were granted each year to people who completed a prep program in another state. In the most recent year, however, that number fell to 934, a decrease of 49%.

Table 28: Steep decline in completers from other states coming to Wisconsin

	2009-10	2010-11	2011-12	2012-13	2013-14
Total number receiving initial teacher credential who completed a teacher prep program in another state	1,529	1,861	1,822	1,821	934

Source: U.S. Dept. of Education Title II Reports

The decline in program enrollments and completers nationally and in neighboring states has two important consequences for Wisconsin. First, other states will be focused on using their program completers to fill their own vacancies. Because out-of-state completers will not need to look far to find a teaching job, Wisconsin may not be able to rely on using those graduates to fill its teacher vacancies.

In addition, there is a threat that the need for teachers in neighboring states may serve as a greater enticement for Wisconsin program completers to take jobs elsewhere, which would further exacerbate the short supply of educators in our state. As an example, roughly 300 students each year complete the teacher prep program at UW-Whitewater, located less than 25 miles from the Illinois border. Table 29 illustrates the starting salary of a first year teacher in a number of southeast Wisconsin and northeast Illinois districts, and suggests that the higher salaries in the Illinois districts could pose a challenge for retaining such graduates in Wisconsin.

Table 29: Average salary for a first-year teacher in the 2013-14 school year

	Total Salary
Beloit	\$31,167
Janesville	\$33,965
Kenosha	\$43,109
Milwaukee	\$42,497
Racine	\$39,583
Antioch	\$44,093
Chicago Public Schools	\$49,660
Libertyville	\$50,647
Warren Township	\$42,666

Source: Wisconsin Dept. of Public Instruction, National Council on Teacher Quality, Illinois

Districts 117, 121, and 128

Districts currently are managing teacher turnover in an environment of stable K-12 student enrollment over the last five years, as shown earlier in **Table 1**. Yet, public school enrollments statewide are now projected to grow each year, with up to 10,000 additional students forecast by 2020.9 These projections suggest the demand for teachers will increase in the near future.

An increased demand for teachers coupled with a diminished supply will present staffing challenges for schools and districts. It is not hard to imagine rural or financially under-resourced districts having

⁹ University of Wisconsin-Madison. Applied Population Laboratory. (2014). *Projecting Public School Enrollment in Wisconsin*. http://www.apl.wisc.edu/publications/WI_School_Erollment_Projections_2014.pdf



trouble meeting their staffing needs. Moreover, this analysis has focused on public school districts, but private schools need teachers, too. Private schools rely on the same pool of program completers, which further constrains the short supply of teachers for public school districts.

With a smaller pool of potential teachers, each vacancy will become more difficult to fill. There are two potential solutions to this problem. First, increase the retention of current teachers so that there are fewer vacancies. Second, increase the number who enroll in and complete teacher prep programs so that the pool of potential teachers is bigger. In the following sections, we present strategies and policy options to facilitate these two solutions.



THE IMPORTANCE OF TEACHER RETENTION

As we have pointed out, teachers leave the profession for any number of reasons. Combined with retirements, there will always be some outflow of teachers from the workforce. However, schools and districts can take steps to reduce the number of teacher who leave, which will ease the impact of the decreased supply of teachers.

Retention is a challenge for teachers of all experience levels, but it is a particularly pressing issue for those new to the profession. Research indicates that between 40% and 50% of teachers leave the profession in their first five years. ¹⁰ In Wisconsin, there were 2,153 first year teachers in the 2009-10 school year. Four years later, 712 teachers – 33.1% – had left the profession. Departures were more acute in Metro Milwaukee, where 39.6% of new teachers in 2009-10 were gone by 2013-14. With a fifth year of data, the patterns for the state and region would easily align with the national figures.

Increasing teacher retention has the obvious benefit of reducing the number of teachers who need to be replaced, but there are other benefits, as well. Although teacher effectiveness varies across all experience levels, studies indicate that experienced teachers are more effective than new teachers. As with any job, there is a learning curve, so it is reasonable to think teachers become more comfortable and capable with more time in the classroom. Additional research suggests that experienced educators increase student achievement beyond the initial three- to five-year learning curve for a new teacher. Better retention would keep more of these effective teachers in the classroom.

Teachers are the frontline educators and lead the classroom, but they are also part of a team within the school. A growing body of research points to the importance of principals and school culture in fostering student achievement. High teacher turnover may negatively impact the culture of a school, or inhibit the development of a strong and supportive culture. It is possible that increasing teacher retention can help maintain a strong organizational climate, which in turn can raise student achievement.

The question of how best to retain teachers deserves a longer and more detailed discussion than we can provide in this report. However, a few common themes arose from our research and conversations with teachers.

• Communication. It is important for school leaders to clearly express expectations and then work to provide the supports necessary to help teachers reach those standards. This communication is especially important at a time when Wisconsin academic standards and state assessment exams are changing from one year to the next.

¹³ MacNeil, A.J., Prater, D.L., Busch, S. (2009). *The effect of school culture and climate on student achievement*. International Journal of Leadership in Education.



41

¹⁰ Ingersoll R., Perda D. (2010). *How high is teacher turnover and is it a problem?* Philadelphia, PA: University of Pennsylvania, Consortium for Policy Research in Education.

¹¹ Kane, T.J., Rockoff, J.E., Staiger, D.O. (2006). What does certification tell us about teacher effectiveness? Evidence from New York City. NBER Working Paper No. 12155.

¹² Papay, J.P., Kraft, M.A. (2015). *Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement.* Journal of Public Economics. http://scholar.harvard.edu/files/mkraft/files/jpubec - returns to experience manuscript - r2.pdf

Communication starts with teacher orientation and the on-boarding process, but it should continue throughout the year. Regular check-ins can provide teachers – and especially new teachers – with feedback that can help adjust and improve their efforts. These check-ins also can help school leaders understand the goals and desires of their teachers and to place employees in roles that are mutually beneficial. Additionally, recognition is important, and publicly acknowledging good work can help foster a strong school culture.

- Mentoring. Pairing teachers with a more experienced mentor can provide a number of benefits.
 Mentors help provide insight and guidance to hone the craft and create highly-effective teachers.
 Mentors can be particularly valuable to new teachers, but this practice should be available to more experienced teachers, as well. Connecting groups of teachers through mentoring can help create a sense of teamwork as well as a support network for teachers. This support from school leaders, mentors and colleagues can help prevent teachers from feeling burnt out and leaving the profession.
- Professional development. Whether hosted at the school, or sending teachers to off-site
 conferences, professional development opportunities allow for sharing and learning best
 practices. Off-site conferences and workshops can be particularly effective. Not only do they
 expose teachers to new topics, but they also signal that the school is investing in the staff
 member and cares about his or her development. Limited resources prevent schools and
 districts from sending all teachers to these events, but care should be taken to ensure access to
 professional development opportunities.



POLICY OPTIONS

Just as many factors have contributed to the current challenge of a shrinking supply of teachers, possible solutions to the issue also are multifaceted. In this section, we propose a set of policy options to ease the shortage and bolster the profession. This is not meant to be an exhaustive list, but rather to spur a conversation on the future of the teaching profession in our state and region.

In addition, we acknowledge that several of these options would require additional public funding. Under current funding formulas, districts receive a set amount of funding from the state. Districts also receive money through property taxes, but state law limits the amount that can be raised through taxes. This system places a limit on the amount of funding available to a district. As a result, some school districts in the region have turned to public referenda in recent years to meet current and projected funding needs.

Implementing these or other policy options may require changes to the state funding formula to allow districts greater flexibility to raise and spend money, or may require a greater commitment of state resources. This undoubtedly will be a challenge given state and local budget constraints, but the scope of this problem may demand that funding obstacles be overcome.

Also, it is important to recognize that the necessary discussion about strategies to increase the supply of teachers will occur in the context of recent legislative actions that already may be having an impact:

Alternative certification. The recent biennial budget included two measures intended to make it
easier for certain individuals to secure a teaching license. First, DPI will grant an initial teaching
license for a technical education subject based in part on the applicant's experience in the field.
Unlike other teachers, the applicant would not need a Bachelor's degree. The initial license
would be valid for three years. Additionally, DPI is authorized to grant an initial teaching license
to those with a teaching license from another state. Applicants must have at least one year of
experience teaching in that state and be offered a job by a school or district in Wisconsin.

The governor also proposed in his 2015-17 state budget a provision that would have allowed teaching licenses to be granted to individuals with a bachelor's degree who passed a competency exam in the subject area they intended to teach, provided that they possessed relevant experience in the subject area. This license would have allowed the individual to teach in grades six through 12 and would have been valid for a three-year renewable period. Ultimately, the proposal was not adopted, however.

• Reductions in state funding for higher education. As part of the biennial budget, state aid to the University of Wisconsin System will be reduced by \$250 million over the course of the 2015-17 fiscal years. The budget also provided an extension of the tuition freeze at UW campuses that was imposed under the previous state budget. The combination of reduced state funding and an inability to compensate though tuition increases has required UW campuses to make cuts, including the reduction of course offerings and faculty and staff positions. The UW System enrolls 69% of all students in Wisconsin teacher preparation programs. Current and future funding constraints within the UW System may impact efforts to increase the supply of teachers in the state.



PROMISE PROGRAMS FOR TEACHER PREPARATION

As our research has shown, enrollment levels in teacher preparation programs throughout Wisconsin have experienced a decline in recent years. A targeted scholarship initiative could incentivize students to enroll in and complete teacher preparation programs. This could take the form of a statewide or regional promise program, or could be facilitated by individual colleges and universities offering scholarships.

The idea of a promise program is not new. The Kalamazoo Promise, launched in 2005, is one of the more prominent programs nationally. Participants agree to meet certain requirements and, in return, the program covers up to 100% of tuition and fees to any public university in Michigan. The program succeeded in increasing college enrollment and credentials earned. A similar program, the Wisconsin Covenant Scholars Grant, provided financial aid to any state institution for students who agreed to meet broad requirements.

Students participating in the program would agree to enroll in and complete a teacher preparation program in Wisconsin. Upon graduation, these students would agree to work in a Wisconsin school for a set period of time, perhaps five years. In exchange, students would receive a grant to help pay for tuition and fees. The grant would be renewable up to a limit (eight semesters) and could be combined with other scholarships and financial aid.

Wisconsin and Kalamazoo have shown that statewide and regional promise programs can successfully motivate students to attend college. Whether implemented statewide or regionally, a similar program focused on teachers could help boost enrollments, completers, and ultimately, the pool of educators.

TEACHER LOAN FORGIVENESS

Student loans have become a near ubiquitous facet of attending college. For the class of 2014, 70% of Wisconsin students graduated with student loan debt, with an average debt amount of \$28,810.15

The federal government has a loan forgiveness program for graduates seeking teaching careers in public schools. Borrowers must work full-time for five consecutive academic years in a low-income school and make regular monthly payments through one of several repayment plans. At the end of this period, a typical teacher could have up to \$5,000 in loans forgiven, while those teaching math, science, or special education could be eligible for forgiveness of up to \$17,500.

There are many positive aspects of the federal teacher loan forgiveness program, but there also are limitations. First, the program is only available to those teaching in high-poverty schools. This is laudable, but the program does not help teachers in all districts. In addition, the amount of loan forgiveness for most teachers is relatively small compared to the average student loan debt, and the program only is available for federal loans, and does not cover other types of student loans.

The Wisconsin Teacher Education Loan program offers a similar benefit to students in our state. Under the program, current college sophomores, juniors, and seniors can apply for loans from the state Higher Educational Aids Board (HEAB) worth up to \$10,000 annually for up to three years.

¹⁵ The Institute for College Access & Success. (2015). Project on Student Debt. http://ticas.org/posd/map-state-data-2015#



44

¹⁴ Bartik, T.J., Hershbein, B., Lachowska, M. (2015). *The effects of the Kalamazoo Promise Scholarship on college enrollment, persistence and completion*. Upjohn Institute Working Paper 15-229.

Borrowers can have 25% of their outstanding loan amount forgiven for each year that a borrower works in a public or private school in Milwaukee or rural areas, and receives a proficient or distinguished teacher rating.

Though potentially more generous than the federal program, the Wisconsin loan forgiveness plan does not benefit many students. In recent years, few students received HEAB loans, which limited eligibility. Secondly, the program is not funded at a sufficient level to assist large numbers of students, with just \$272,200 allocated in the 2015-17 state budget. Using the maximum award amount of \$10,000, only 27 students in the state would benefit from the program. Finally, teachers must receive one of the two highest evaluation ratings each year, further limiting the number who benefit from the program.

The existing Wisconsin Teacher Education Loan program provides a foundation to build on. Policymakers may consider increasing program funding to benefit greater numbers of students. Additionally, the program could expand to include non-HEAB loans. Opening the program to teachers working in all Wisconsin districts would further increase eligibility.

An expanded state program, in conjunction with the existing federal program, would increase the number of teachers eligible and the dollar amount of loan forgiveness available. These outcomes, in tandem, could provide an incentive for teachers to enter and remain in the profession.

STUDENT LOAN DEBT ASSISTANCE

The teacher loan forgiveness program incentivizes people to stay in the profession by offering the benefit after a set period of time, though borrowers must continue to make loan payments during this time. A modified approach could provide a similar incentive with a more immediate benefit.

Under a debt assistance program, borrowers would receive a payment for each year they work in a school, with the payment amount increasing with each additional year of service. For example, a teacher may receive \$1,000 in debt assistance in their first year, \$1,500 in his or her second year, and so on. There could be a cap on the annual amount as well as on the number of years the benefit could be available. The debt assistance payment would be in addition to salary and treated more like a benefit. The program could be designed as a statewide initiative or it could be offered by districts.

One advantage to this approach is that teachers would receive the benefit in real time, rather than after five years. Also, the increasing amount of debt assistance would incentivize teachers to stay in the workforce, with long-term service earning higher benefits. If structured as a district program, this would help retain teachers in a particular district. If structured as a statewide program, teachers would be able to change districts without losing the benefit.

CHANGES TO SALARY STRUCTURE

The first three policy recommendations address costs associated with entering the teacher workforce. In addition to high entry costs, the teaching profession pays less than many other jobs requiring a bachelor's degree. In 2013-14, the average salary of a Wisconsin public school teacher was \$49,908.¹⁶ By comparison, the average salary for a bachelor's degree holder nationwide was \$62,048.¹⁷

¹⁶ Wisconsin Department of Public Instruction. (2014). Average salary report for teachers by district.



45

Moreover, as discussed earlier, money is the top reason cited by local school district human resources professionals as to why teachers leave the profession. Finding ways to increase educator salaries may go a long way toward retaining current teachers and encouraging people to enter the profession.

Some districts have altered their salary structures by introducing performance-based compensation. Under this model, teacher salaries are determined, in part, by evaluations, and those evaluations may be linked to increases or bonuses that allow take-home pay to exceed previous step levels. The metrics and measures used to evaluate teachers need to be carefully considered and well-communicated, but performance-based compensation could elevate salaries, particularly for highly effective teachers.

PART-TIME TEACHER EMPLOYMENT

Family considerations represented the second most frequent reason cited by local school district human resources professionals as to why teachers leave the profession. The vast majority of Wisconsin educators are women, and many of them are of child-bearing age. Efforts to increase the work-family balance could result in more teachers staying in the workforce.

One policy option is to allow for part-time teacher employment. A teacher deciding between full-time work and full-time family obligations may find a middle ground in teaching on a part-time basis. This could provide greater flexibility, particularly related to child care, while also keeping the teacher engaged in the classroom and school culture. While the discussion of family has primarily focused on child care, it is likely that some teachers are leaving the profession to take care of aging family members. Offering part-time teacher employment may retain these qualified teachers, as well.

COMMUNITY-WIDE COLLABORATION TO SUPPORT TEACHERS AND THE TEACHING PROFESSION

Efforts to overcome the diminished supply of teachers would benefit from collaboration and partnerships across sectors and industries. Fortunately, in Metro Milwaukee, there are already examples of such partnerships taking place.

The Greater Milwaukee Committee and several partners from the business, education, and philanthropic fields recently formed the Teachtown initiative to attract and support a network of educators to live and work in Milwaukee. Since its launch in December 2012, Teachtown has helped to attract 648 teachers to the area.

Additionally, the leaders of teacher preparation programs in the area have joined together to form the Education Deans of Greater Milwaukee (EDGM). This collaborative effort seeks to be a voice informing policymakers and the community regarding the teaching profession. These and other collaborative efforts can help teachers succeed and contribute to enhanced public opinion about educators, both of which may lead to more people choosing teaching as a career.

http://dpi.wi.gov/cst/data-collections/staff/published-data

¹⁷ Current Population Survey. U.S. Census Bureau. (2014). Table PINC-03. Educational Attainment-People 25 Years Old and Over, by Total Money Earnings in 2013, Work Experience in 2013.



CONCLUSION

This report set out to determine if the Greater Milwaukee region was facing a teacher shortage. Using data from the Wisconsin Department of Public Instruction, federal Title II reports, and institutional data from teacher preparation programs, we identified a number of patterns and trends.

Overall, we find that there is a shrinking supply of new teachers to replace a steady stream of existing teachers leaving the workforce. Moving forward, this dwindling supply will make it harder to replace each teacher vacancy. Specific research findings include the following:

- The number of teachers leaving the workforce has increased 22.5% in recent years.
- More than a quarter of the teaching workforce in Metro Milwaukee is over age 50, and as this group ages, departures are likely to become more numerous.
- According to local school district human resources professionals, aside from retirement, most teachers leave for money or family obligations.
- About 62% of replacement teachers in Milwaukee are in their first year of teaching.
- Enrollments in Wisconsin teacher preparation programs are down 27.9%, from 12,323 students in 2008-09 to 8,887 students in 2013-14.
- Teacher prep program completers are down 6.6% in recent years from 4,007 to 3,741 and will likely continue to decline for the next several years.

These findings provide much insight about the educator workforce in the region, but they omit an entire sector of schools. Private schools do not submit the same data and, therefore, were not included in this report. However, private schools hire their teachers from the same preparation programs as public schools. As a result, the diminished supply of teachers must fill vacancies across two school sectors, further exacerbating the shortage.

As with many research projects, this report raises more questions than it provides answers. Some questions for future research include:

- What is the pipeline for school leaders and are we facing a shortage in that area, as well?
- Does teacher turnover affect student academic achievement?
- With so many new teachers leaving the profession, is there a linkage to the quality of teacher preparation programs and whether they are providing the experiences and skills necessary to succeed in the job?

We hope to address these and other questions in future research.

Schools are an integral part of a healthy and vibrant community. Teachers, in turn, are an essential element of schools. The data and findings presented here paint a concerning picture about the teacher workforce in our region. Wisconsin faces a dwindling supply of teachers who will be in high demand from districts throughout the state and even from other states. This will make each future teacher vacancy harder to fill.

Armed with this information, we encourage policymakers, school leaders, and the public to have an honest conversation about what the teaching profession in Milwaukee should look like. Collaborative partnerships and focused attention can better support current teachers and encourage new teachers to ensure a steady and stable supply of educators for the schools and children in our region.

